



U.S. DEPARTMENT OF COMMERCE

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

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ENVIRONMENTAL DATA SERVICE

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Solar - Geophysical Data

NO. 386 OCTOBER 1976

Part I (Prompt Reports)

DATA FOR
SEPTEMBER 1976
AUGUST 1976

**NATIONAL GEOPHYSICAL AND SOLAR - TERRESTRIAL DATA CENTER
BOULDER, COLORADO**

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SOLAR - GEOPHYSICAL DATA

No. 386

Issued in two parts

Hope I. Leighton, Editor

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

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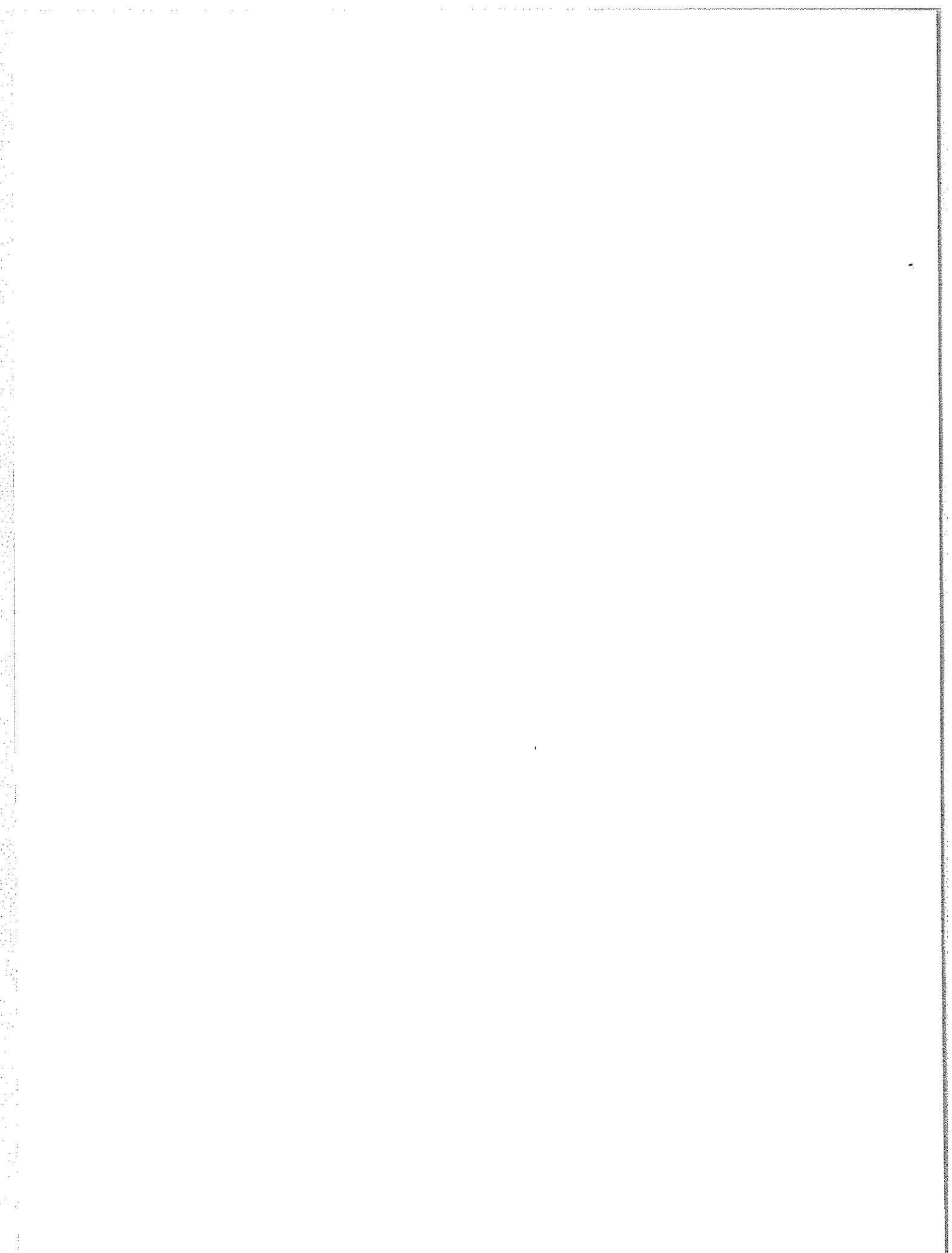
INDEX FOR 1975 - 1976 DATA PUBLISHED IN "SOLAR-GEOPHYSICAL DATA"

	1975				1976									
	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
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A.1 Sunspot Drawings	374A 28	375A 24	376A 28	377A 26	378A 28	379A 26	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
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A.2b Zürich Final Sunspot Numbers R _Z	378A 6	378A 6	378A 6	378A 6	378A 6									
A.2c American Relative Sunspot Numbers R _A	373A 7	374A 7	375A 7	376A 7	377A 7	378A 7	379A 7	380A 7	381A 7	382A 7	383A 7	384A 7	385A 7	386A 7
A.3a Mt. Wilson Magnetograms	374A 28	375A 24	376A 28	377A 26	378A 28	379A 26	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
A.3b Mt. Wilson Magnetic Characteristics of Sunspots	374A 90	375A 84	376A 90	377A 86	378A 90	379A 88	380A 94	381A 92	382A 86	383A 88	384A 84	385A 88	386A 84	
A.3c Kitt Peak Magnetograms	374A 28	375A 24	376A 28	377A 26	378A 28	379A 26	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
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A.5 Calcium Plage Drawings - McMath (or Catania)	374A 28	375A 24	376A 28	377A 26	378A 28	379A 26	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
A.5a Calcium Plage (McMath) and Sunspot Regions	374A 90	375A 84	376A 90	377A 86	378A 90	379A 88	380A 94	381A 92	382A 86	383A 88	384A 84	385A 88	386A 84	
A.5b McMath Daily Calcium Plage Indices	374A 95	375A 90	376A 96	377A 92	378A 94	379A 93	380A 100	381A 97	382A 91	383A 94	384A 90	385A 93	386A 89	
A.6 H α Synoptic Charts	378B 14	380B 12	376A 27	377A 25	378A 27	379A 25	380A 33	381A 29	382A 25	383A 25	384A 23	385A 24	386A 20	
A.7b Coronal Line Emission	374A 28	375A 24	376A 28	377A 26	378A 28	379A 26	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
A.7f Helium D3 Chromosphere (Big Bear)	---	---	---	---	---	378A 23	379A 21	380A 30	381A 24	382A 21	383A 21	384A 19	385A 21	---
A.8aa 2800 MHz - Daily Values of Solar Flux (ARO-Ottawa)	373A 7	374A 7	375A 7	376A 7	377A 7	378A 7	379A 7	380A 7	381A 7	382A 7	383A 7	384A 7	385A 7	386A 7
A.8ac 2800 MHz - Daily Values of Adj. Solar Flux (ARO-Ottawa)	373A 7	374A 7	375A 7	376A 7	377A 7	378A 7	379A 7	380A 7	381A 7	382A 7	383A 7	384A 7	385A 7	386A 7
A.8c Daily Values of Adjusted Solar Flux (AFGL)	373A 7	374A 7	375A 7	376A 7	377A 7	378A 7	379A 7	380A 7	381A 7	382A 7	383A 7	384A 7	385A 7	386A 7
A.9b 8.4 mm Radio Maps of the Sun (NRL - La Posta)	374A 28	375A 24	376A 28	377A 26	378A 28	379A 26	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
A.9d 2 cm Radio Maps of the Sun (NRL - La Posta)	374A 28	375A 24	376A 28	377A 26	378A 28	379A 26	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
A.10a 169 MHz - Interferometric Observations (Hancay)	373A 15	374A 12	375A 12	376A 14	377A 12	378A 12	379A 12	380A 15	381A 13	382A 12	383A 12	384A 12	385A 12	386A 12
A.10c 21 cm East-West Solar Scans (Fleurs)	373A 17	374A 14	375A 14	376A 16	377B 57	378A 15	379A 14	380A 17	381A 15	382A 14	383A 15	384A 14	385A 14	386A 14
A.10d 43 cm East-West Solar Scans (Fleurs)	373A 18	374A 15	375A 15	376A 17	378B 58	378A 16	379A 15	380A 18	381A 16	382A 15	383A 16	384A 15	385A 15	386A 15
A.10e 10.7 cm East-West Solar Scans (Ottawa-ARO)	373A 16	374A 13	375A 13	376A 15	377A 12	378A 13	379A 13	380A 16	381A 14	382A 13	383A 14	384A 13	385A 13	386A 13
A.11g Solar X-ray (SMS/GOES)	373A 25	374A 20	375A 18	376A 21	377A 19	378A 20	379A 19	380A 26	381A 21	382A 18	383A 19	384A 17	385A 18	386A 16
A.11h Solar X-ray (OSO-8; 1975-057A)	374A 28	375A 24	376A 28	377A 26	378A 28	379A 26	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
A.11ib Solar EUV Spectroheliograms FeXV 284Å (AURA D2-B)	---	---	---	---	---	---	380A 36	381A 30	382A 26	383A 26	384A 24	385A 26	386A 22	
A.12ba Cosmic Ray Protons (Pioneers 6 & 7)	---	374A 18	---	---	377A 18	---	---	---	---	---	---	---	---	386A 15
A.12bb Cosmic Ray Protons (Pioneers 8 & 9)	---	374A 19	---	---	---	---	---	---	---	---	---	---	---	---
A.12c Energetic Solar Particles (IMP H & J)	380B 23	381B 39	382B 29	382B 35	382B 12	383B 17	384B 10	385B 16	386B 20	---	---	---	---	---
A.13a Solar Wind (Pioneers 6 & 7)	---	374A 18	---	---	---	---	---	---	---	---	---	---	---	---
A.13d Solar Wind from IPS Measurements	373A 24	374A 17	375A 17	376A 20	377A 18	378A 19	379A 18	380A 25	381A 20	382A 17	383A 18	---	---	386A 15
A.13e Solar Plasma (IMP H & J)	380B 22	381B 38	382B 28	382B 34	383B 39	383B 16	384B 9	385B 15	---	---	---	---	---	---
A.17 Interplanetary Magnetic Field (Pioneer 8)	---	374A 19	---	---	---	---	---	---	---	---	---	---	---	---
A.17b Interplanetary Magnetic Field (Pioneer 9)	---	374A 19	---	---	---	---	---	---	---	---	---	---	---	---
A.17c Inferred IP Magnetic Field	373A 29	374A 23	375A 20	376A 24	377A 21	378A 24	379A 22	380A 31	381A 25	382A 22	383A 22	384A 20	385A 22	386A 18
A.18 Interplanetary Electric Field (Pioneer 8)	---	374A 19	---	---	---	---	---	---	---	---	---	---	---	---
A.18b Interplanetary Electric Field (Pioneer 9)	---	374A 19	---	---	---	---	---	---	---	---	---	---	---	---
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B.51ca High Latitude Quality Figures and Forecasts	374A 115	375A 103	376A 113	377A 111	378A 114	379A 115	380A 119	381A 126	382A 113	383A 118	384A 108	385A 113	386A 111	
B.52 Graphs of Transmission Frequency Range	374A 116	375A 104	376A 114	377A 112	378A 115	379A 116	380A 120	381A 127	382A 114	383A 120	384A 110	385A 114	386A 112	
B.53 Quality Figures Based on Frequency Ranges	374A 118	375A 106	376A 116	377A 114	378A 117	379A 118	380A 122	381A 129	382A 116	383A 119	384A 109	385A 116	386A 114	
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C.1a Optical Observations Flares	373A 10	374A 20	375A 10	376A 10	377A 10	378A 10	379A 10	380A 10	381A 10	382A 10	383A 10	384A 10	385A 10	386A 10
C.1ba Optical Observations Flares (Standardized Data)	378B 4	379B 4	380B 4	381B 4	382B 4	383B 4	384B 4	385B 4	386B 7	---	---	---	---	---
C.1b Flare Patrol Observations	373A 14	374A 11	375A 11	376A 13	377A 11	378A 12	379A 11	380A 14	381A 12	382A 11	383A 12	384A 11	385A 11	386A 11
C.1c Flare Patrol Observations	378B 25	379B 8	380B 7	381B 13	382B 8	383B 10	384B 7	385B 14	386B 12	---	---	---	---	---
C.1e Flare Indices (by day)	378B 24	379B 7	380B 6	381B 12	382B 7	383B 9	384B 6	385B 13	386B 11	---	---	---	---	---
C.1f Flare Indices (by Region)	379B 22	380B 20	381B 36	382B 26	383B 32	384B 24	385B 56	386B 34	---	---	---	---	---	---
C.3 Solar Radio Waves - Outstanding Occurrences	378B 26	379B 9	380B 8	381B 14	382B 9	383B 11	384B 8	385B 15	386B 13	---	---	---	---	---
C.3a Solar Radio Waves - Fixed Frequencies - Selected	373A 19	374A 16	375A 16	376A 18	377A 16	378A 17	379A 16	380A 19	381A 17	382A 16	383A 16	384A 16	385A 16	386A 14
C.3b 43.25, 80 and 160 MHz Selected Bursts (Culgoora)	374A 107	376A 16	376A 105	377A 102	378A 101	379A 102	380A 106	381A 114	382A 97	383A 103	384A 92	385A 95	386A 91	
C.4a Solar Radio Spectral Obs. (Fort Davis)	374A 99	375A 92	376A 98	377A 94	378A 96	379A 95	380A 102	381A 100	382A 93	383A 95	384A 92	385A 95	386A 91	
C.4b Solar Radio Spectral Obs. (Boulder)	374A 99	375A 92	376A 98	377A 94	378A 96	379A 95	380A 102	381A 100	382A 93	383A 95	384A 92	385A 95	386A 91	
C.4c Solar Radio Spectral Obs. (Culgoora)	378B 54	376B 24	376A 98	377A 94	378A 96	379A 95	380A 102	381A 100	382A 93	383A 95	384A 92	385A 95	386A 91	
C.4d Solar Radio Spectral Obs. (Weissenau)	374A 99	375A 92	376A 98	377A 94	378A 96	379A 95	380A 102	381A 100	382A 93	383A 95	384A 92	385A 95	386A 91	
C.4f Solar Radio Spectral Obs. (Sagamore Hill)	374A 99	375A 92	376A 98	377A 94	378A 96	379A 95	381B 45	381A 100	382A 93	383A 95	384A 92	385A 95	386A 91	
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C.4i Solar Radio Spectral Obs. (Dünten)	374A 99	375A 92	376A 98	377A 94	378A 96	379A 95	380A 102	381A 100	382A 93	383A 95	384A 92	385A 95	386A 91	
C.4j Solar Radio Spectral Obs. (Manila)	374A 99	375A 92	376A 98	377A 94	378A 96	379A 95	381B 45	381A 100	382A 93	383A 95	384A 92	385A 95	386A 91	
C.5g Solar X-ray (SMS/GOES)	373A 27	374A 22	375A 18	376A 23	377A 23	378A 22	---	---	---	---	---	---	---	---
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D.1a Geomagnetic Indices Kp, K _n , K _s , K _m , Ap, aa, Cp	374A 110	374A 98	376A 108	377A 105	378A 105	379A 108	380A 112	381A 119	382A 106	383A 111	385B 61	385A 106	386A 104	
D.1ba 27-day Chart of Kp Indices	374A 111	374A 99	376A 109	377A 106	378A 107	379A 109	380A 114	381A 121	382A 108	383A 113	384A 103	385A 108	386A 106	
D.1c 27-Day Chart of C9	378A 108	378A 108	378A 108	378A 108	378A 108									
D.1d Principal Magnetic Storms	374A 113	374A 101	376A 111	377A 108	378A 112	379A 113	380A 117	381A 124	382A 111	383A 116	384A 106	385A 111	386A 109	
D.1e Reduced Magnetograms	---	---	381B 47	382B 40	---	---	---	---	---	---	---	---	---	---
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ALERT PERIODS
INTERNATIONAL URSIGRAM
AND WORLD DAYS SERVICE

SEPTEMBER 1976

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				Outstanding events	Forecasts			Alert Situations
						Location		No. of Flares			Date	Location	Desc*	
						Lat-Long	Total	M	X						Lat-Long
245	1	31	24	72	06	N17E37 N18W56	0 0	0 0	0 0		1	N17E37 N18W56	Q Q	SOLQUIET MAGQUIET
246	2	01	47	75	08	N17E24 N18W68	0 0	0 0	0 0		2	N17E24 N18W68	Q Q	SOLQUIET MAGQUIET
247	3	02	31	74	29	N17E12 N18W81	0 0	0 0	0 0		3	N17E12 N18W81	Q Q	SOLQUIET MAGQUIET
248	4	03	16	74	11	N16W01	0	0	0		4	N16W01	Q	SOLQUIET MAGALERT MINOR 05
249	5	04	26	75	15	N16W14 N04E29	0 0	0 0	0 0		5	N16W14 N04E29	Q Q	SOLQUIET MAGALERT MINOR 06
250	6	05	26	74	13	N16W27 N04E14	0 0	0 0	0 0		6	N16W27 N04E14	Q Q	SOLQUIET MAGNIL
251	7	06	11	72	08	N16W41	0	0	0		7	N16W41	Q	SOLQUIET MAGQUIET
252	8	07	11	72	10	N16W54	0	0	0		8	N16W54	Q	SOLQUIET MAGQUIET
253	9	08	11	72	07	N15W68	0	0	0		9	N15W68	Q	SOLQUIET MAGQUIET
254	10	09	33	72	06	N16W81 S22E20	0 0	0 0	0 0		10	N16W81 S22E20	Q Q	SOLQUIET MAGQUIET
255	11	10	21	75	06	S21E07	0	0	0		11	S21E07	Q	SOLQUIET MAGQUIET
256	12	11	38	75	03	S21E06	0	0	0		12	S21E06	Q	SOLQUIET MAGQUIET
257	13	12	20	75	05	S20E21 S24W25	0 0	0 0	0 0		13	S20E21 S24W25	Q Q	SOLQUIET MAGQUIET
258	14	13	19	73	03	S21W32	0	0	0		14	S21W32	Q	SOLQUIET MAGQUIET
259	15	14	38	74	09	S21W46 S25W52 S12E80	0 0 0	0 0 0	0 0 0		15	S21W46 S25W52 S12E80	Q Q Q	SOLQUIET MAGQUIET
260	16	15	25	73	10	S20W63 S11E65	0 0	0 0	0 0		16	S20W63 S11E65	Q Q	SOLQUIET MAGQUIET
261	17	16	12	75	07	S12E52	1	0	0		17	S12E52	Q	SOLQUIET MAGQUIET
262	18	17	13	76	07	N23E70	1	0	0		18	N23E70	Q	SOLQUIET MAGALERT RECURRENCE 19/21
263	19	18	22	74	28	S12E28 N19E22	1 0	0 0	0 0		19	S12E28 N19E22	Q Q	SOLQUIET MAGALERT 19/21
264	20	19	12	73	13	N18W02	0	0	0		20	N18W02	Q	SOLQUIET MAGALERT 20/23
265	21	20	00	72	34	-	-	-	-		21	SPOTNIL		SOLQUIET MAGALERT 21/23
266	22	21	00	70	17	-	-	-	-		22	SPOTNIL		SOLQUIET MAGALERT 22/23
267	23	22	00	70	15	-	-	-	-		23	SPOTNIL		SOLQUIET MAGNIL
268	24	23	00	71	10	N23W93	0	-	-	PLAGE NO SPOTS HAS PRODUCED FLARES	24	N23W93	Q	SOLQUIET MAGQUIET
269	25	24	11	72	06	N16E81	0	0	0		25	N16E81	Q	SOLQUIET MAGQUIET
270	26	25	25	73	14	N16E69 S26E76	0 0	0 0	0 0		26	N16E69 S26E76	Q Q	SOLQUIET MAGQUIET
271	27	26	27	72	08	N16E55 S26E62	0 0	0 0	0 0		27	N16E55 S26E62	Q Q	SOLQUIET MAGQUIET
272	28	27	40	73	11	N16E41 S26E46 S26E41	0 0 0	0 0 0	0 0 0		28	N16E41 S26E46 S26E41	Q Q Q	SOLQUIET MAGQUIET
273	29	28	22	73	10	N16E32 S27E32	0 0	0 0	0 0		29	N16E32 S27E32	Q Q	SOLQUIET MAGQUIET
274	30	29	35	72	08	N16E12 S27E13 N28W28	0 0 0	0 0 0	0 0 0		30	N16E12 S27E13 N28W28	Q Q Q	SOLQUIET MAGQUIET
275	01	30	48	72	08	N16E00 S27E01 N28W39 N31W01	0 0 0 0	0 0 0 0	0 0 0 0		01	N16E00 S27E01 N28W39 N31W01	Q Q Q Q	SOLQUIET MAGQUIET

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

RELATIVE SUNSPOT NUMBERS
ZURICH, R_Z

DAY	1975 FINAL			1976 PROVISIONAL								
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	0	7	0	0	0	26	35	0	9	10	17
2	8	0	23	0	0	0	25	26	0	8	18	20
3	9	7	20	0	0	0	22	25	0	14	19	12
4	10	18	23	0	0	0	13	8	0	8	14	11
5	8	22	21	0	0	0	12	22	0	8	17	17
6	10	27	18	0	0	10	9	10	0	10	15	10
7	9	30	20	0	0	12	0	10	0	7	26	9
8	16	33	18	0	0	7	0	9	11	0	30	9
9	15	36	8	0	0	10	8	8	10	0	31	18
10	8	26	0	0	0	12	10	10	7	0	24	22
11	8	30	0	0	0	13	15	16	7	0	22	24
12	10	24	0	20	0	13	17	17	8	0	29	20
13	21	22	0	26	13	13	17	23	8	0	27	12
14	26	29	7	36	16	22	19	30	15	0	16	10
15	21	28	7	20	18	16	19	17	18	0	8	16
16	18	28	7	22	11	11	19	12	12	0	15	14
17	16	30	9	24	8	30	24	18	18	0	19	8
18	16	33	8	20	15	45	27	8	24	0	23	8
19	15	36	7	18	10	51	27	20	23	0	25	7
20	10	35	0	16	12	51	30	20	17	0	19	0
21	7	31	0	11	8	48	39	14	30	0	17	0
22	0	23	0	10	7	36	20	7	31	0	8	0
23	0	12	0	10	0	28	17	15	23	0	9	7
24	7	11	16	0	7	25	16	8	26	0	17	7
25	0	9	14	0	0	22	17	0	19	0	9	16
26	0	7	8	0	0	42	28	7	19	0	14	17
27	0	0	0	7	7	46	23	0	9	0	7	18
28	0	0	0	0	0	56	21	0	16	0	8	18
29	0	0	0	14	0	42	26	0	11	0	9	25
30	0	0	0	8	0	32	38	0	10	0	10	31
31	0		0	0		27		0		0	9	
MEAN	9.1	19.4	7.8	8.5	4.6	23.0	19.5	12.7	12.4	2.1	16.9	13.4

1975 yearly mean = 15.5

DAILY SOLAR FLUX AT 2800 MHz
OTTAWA ARO

FLUX ADJUSTED TO 1 A.U., S₁₁

DAY	1975			1976								
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76.4	70.4	72.1	72.1	68.6	67.7	79.6	77.6	68.4	69.3	75.9	76.3
2	78.1	71.4	74.8	71.2	68.6	68.1	76.8	74.2	67.9	69.1	77.8	75.3
3	78.4	73.0	74.3	71.3	68.4	67.4	76.1	71.9	68.1	69.5	82.3	75.7
4	76.3	75.4	74.1	71.8	68.4	67.4	74.7	71.5	68.4	68.6	82.3	75.9
5	76.1	78.9	77.4	71.9	67.6	67.6	73.0	71.1	68.7	69.5	84.2	75.4
6	75.1	80.1	75.8	71.7	68.1	67.5	71.3	69.9	69.3	69.6	84.3	73.1
7	74.3	80.5	73.7	71.6	69.3	67.9	70.3	70.3	69.0	69.5	83.7	73.0
8	74.0	80.9	76.0	70.9	68.4	67.9	71.9	70.2	70.7	69.7	82.0	72.9
9	75.4	78.6	73.3	69.4	68.3	66.2	74.1	70.6	70.1	69.7	82.8	73.2
16	74.3	78.9	73.3	70.5	68.5	68.4	75.3	71.7	71.0	70.1	82.8	75.8
11	73.3	78.6	74.3	72.1	68.4	68.8	77.1	72.5	71.4	70.2	80.4	75.7
12	74.8	79.9	73.4	76.9	67.8	68.9	78.1	72.6	71.7	69.8	80.6	73.0
13	79.0	79.2	72.8	80.0	69.7	70.9	79.6	73.6	72.0	69.8	78.7	74.3
14	80.0	82.7	71.8	82.1*	69.9	70.1	79.5	74.2	73.7	70.7	73.4	74.7
15	80.3	83.7	71.8	80.4	69.6	69.1	79.2	76.9	74.3	71.4	72.8	73.9
16	78.5	87.6	70.5	78.1	69.7	72.5	80.6	79.2	77.1	69.8	72.9	75.8
17	78.9	86.9	73.5	76.0	69.9	74.4*	80.5	76.5	77.1	69.4	77.8	76.5
18	79.2	90.8*	69.6	76.7	70.1	79.0	80.5	75.6*	77.9	70.6	78.2	74.3
19	78.0	93.8*	69.1	75.2	70.1	81.6*	79.8	73.8	76.9	70.2	76.1	73.3
20	77.1	90.9	69.7	74.6	70.0	85.0	80.0	73.8	76.9	69.4	74.5	72.2
21	75.7	86.6	69.0	72.1	68.8	91.2	78.0	74.0	77.7	70.1	73.2	70.9
22	74.2	81.5	68.9	70.9	68.9	83.0	76.2*	72.5	69.0	78.9	72.3	70.5
23	74.3	77.2	69.6	70.2	69.2	86.9	75.7	71.9	76.5	68.7	70.8	72.0
24	72.7*	74.7	71.4	68.5	69.6	82.2*	76.8	70.8	75.2	69.4	70.9	72.5
25	72.1	73.7	71.0	68.2	68.4	85.1	75.7	69.8	74.9	68.8	70.6	73.4
26	71.9	71.9	71.8	68.2	68.5	84.1*	75.7	69.5	74.3	68.5	70.1	72.8
27	72.1	70.7	72.5	67.2	68.5	85.5	74.5	69.6	72.8	69.4	71.5	73.3
28	71.7	70.4	71.5	67.1	67.9	87.1*	73.4	69.0	71.8	69.4	72.8	73.6
29	70.8	70.9	72.5	67.4	67.4	84.0	79.6	68.0	71.3	69.4	73.3	71.9
30	70.2	70.6	71.9	68.9	68.9	82.4	79.5*	68.1	70.3	70.7	73.0	72.6
31	69.9		72.1	69.1		82.7		68.7		72.3	73.8	
MEAN	75.3	79.1	72.3	72.4	68.8	75.8	76.7	72.2	72.8	69.8	76.6	73.9

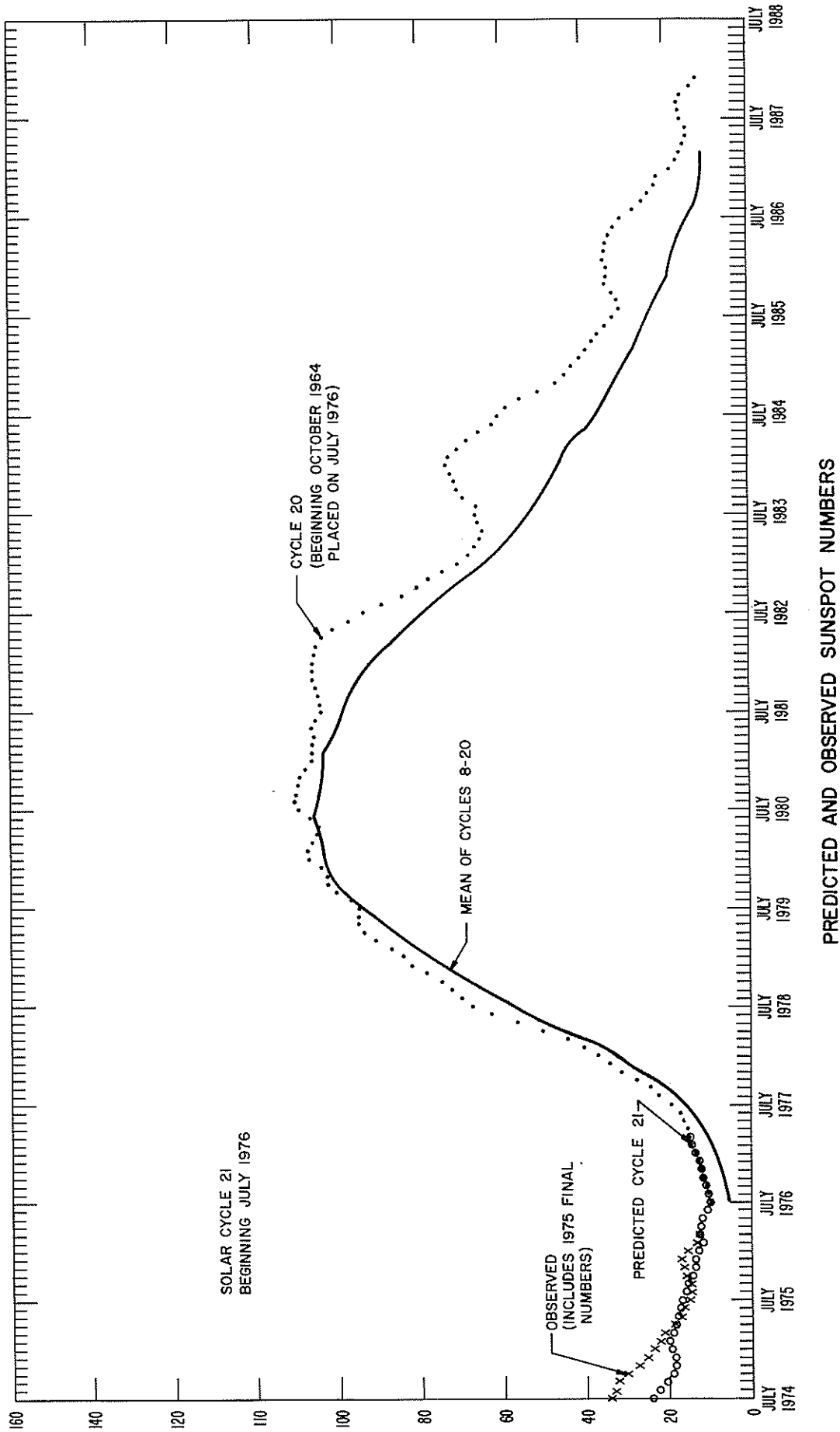
* adjusted for burst

DAILY SOLAR INDICES

SEPTEMBER 1976

SEP 1976	YEAR DAY	BARTELS 27-DAY CYCLE NUMBER	SUNSPOT NUMBERS		OBSERVED FLUX OTTAWA 2800	SOLAR FLUX ADJUSTED TO 1 A.U.								
			R _Z	R _{A'}		AFGL 15400	AFGL 8800	AFGL 4995	OTTAWA 2800	AFGL 2895	AFGL 1415	AFGL 606	AFGL 410	AFGL 245
1	245	17	17	21	75.0	512	276	119	76.3	73.8	44.6	39.9	21.5	10.3
2	246	18	20	22	74.0	512	275	119	75.3	72.9	44.0	38.0	21.6	9.6
3	247	19	12	13	74.4	512	274	119	75.7	72.2	44.0	35.9	21.7	10.6
4	248	20	11	10	74.6	522	272	116	75.9	73.4	43.5	37.8	19.8	9.0
5	249	21	17	15	74.2	517	270	115	75.4	72.6	45.4	38.2	20.5	10.4
6	250	22	10	12	71.9	513	268	114	73.1	70.9	43.0	37.1	19.6	9.7
7	251	23	9	10	71.9	511	272	114	73.0	70.3	42.5	36.9	21.7	9.7
8	252	24	9	9	71.8	514	275	116	72.9	70.7	41.5	38.0	19.8	8.1
9	253	25	18	17	72.2	509	271	115	73.2	70.5	40.7	36.1	18.8	8.5
10	254	26	22	22	74.8	516	268	117	75.8	72.2	45.1	37.3	20.5	11.9
11	255	27	24	24	74.7	511	266	117	75.7	72.8	46.8	35.4	21.5	10.1
12	256	1	20	18	74.7	507	272	117	75.7	74.4	46.2	35.0	21.3	9.2
13	257	2	12	17	73.3	506	271	115	74.3	71.6	44.4	35.2	19.5	8.4
14	258	3	10	10	73.7	508	273	117	74.7	72.6	42.5	35.6	19.3	8.1
15	259	4	16	11	73.1	510	269	117	73.9	71.5	44.2	35.0	20.5	7.8
16	260	5	14	10	75.0	516	274	118	75.8	74.0	45.5	35.2	21.1	8.0
17	261	6	8	9	75.7	515	270	119	76.5	74.7	47.3	36.7	22.5	8.3
18	262	7	8	9	73.6	519	269	114	74.3	71.4	45.0	34.2	20.9	8.4
19	263	8	7	7	72.6	515	267	115	73.3	70.7	43.7	36.4	20.9	8.7
20	264	9	0	0	71.6	521	268	113	72.2	68.4	42.0	35.7	18.7	7.8
21	265	10	0	0	70.3	516	268	114	70.9	69.0	41.9	35.5	19.9	8.0
22	266	11	0	0	70.0	519	269	114	70.5	68.3	43.2	34.8	21.2	8.7
23	267	12	7	1	71.5	519	268	115	72.0	70.2	43.2	33.7	20.3	9.2
24	268	13	7	1	72.1	520	267	115	72.5	70.2	42.8	37.1	18.8	8.2
25	269	14	16	12	73.0	520	268	115	73.4	71.3	43.8	37.2	20.7	9.1
26	270	15	17	19	72.4	518	266	116	72.8	71.0	44.7	36.9	20.5	8.4
27	271	16	18	20	73.0	520	266	116	73.3	70.8	45.8	36.3	20.1	8.2
28	272	17	18	20	73.3	526	270	116	73.6	72.7	45.2	37.9	20.3	8.5
29	273	18	25	20	71.7	517	266	114	71.9	69.8	43.2	37.3	21.6	8.1
30	274	19	31	26	72.4	517	264	114	72.6	69.9	43.6	37.9	21.5	8.7
MEAN			13.4	12.8	73.1	515	270	116	73.9	71.5	44.0	36.5	20.6	8.9

* Adjusted for burst.



PREDICTED AND OBSERVED SUNSPOT NUMBERS

SMOOTHED OBSERVED AND PREDICTED SUNSPOT NUMBERS
CYCLE 21

MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1976	15.5	13.4	12.5	11.1 (--)	10.2 (--)	10.1 (--)	10.0 (--)	10.3 (1)	10.9 (1)	11.5 (2)	12.1 (3)	12.6 (3)
1977	13.6 (4)	14.5 (5)	15.3 (7)	16.8 (8)	18.4 (10)	19.7 (12)	21.7 (14)	24.1 (17)	27.2 (20)	30.8 (23)	33.9 (26)	36.5 (29)
1978	39.4 (32)	42.8 (36)	46.3 (40)	50.3 (43)	54.6 (47)	59.5 (52)	63.8 (55)	66.9 (59)	69.4 (62)	71.7 (65)	75.1 (66)	79.8 (68)
1979	84.4 (71)	88.2 (74)	93.0 (77)	97.3 (79)	100.1 (81)	102.0 (83)	104.1 (87)	107.0 (90)	109.4 (92)	110.5 (93)	110.4 (94)	110.3 (94)
1980	109.7 (93)	108.7 (90)	109.0 (87)	110.4 (84)	112.0 (83)	113.3 (83)	114.4 (79)	115.0 (76)	114.6 (73)	114.4 (70)	114.7 (70)	114.9 (69)
1981	116.5 (69)	119.2 (70)	118.2 (70)	114.6 (68)	111.7 (66)	110.2 (64)	109.5 (62)	110.0 (60)	111.4 (59)	112.4 (58)	112.3 (57)	111.0 (54)
1982	108.2 (51)	104.1 (49)	101.5 (47)	100.0 (46)	98.6 (44)	96.6 (42)	93.3 (41)	88.5 (39)	83.5 (37)	80.4 (33)	75.7 (29)	72.8 (27)
1983	69.8 (26)	67.2 (25)	65.8 (24)	65.1 (23)	64.3 (23)	63.1 (22)	61.6 (23)	61.7 (22)	62.5 (22)	62.4 (23)	62.3 (24)	62.0 (25)
1984	61.5 (25)	60.4 (25)	58.4 (25)	55.8 (24)	53.6 (24)	50.9 (26)	50.0 (27)	48.1 (28)	45.6 (29)	44.1 (28)	42.8 (26)	41.6 (25)
1985	41.0 (24)	40.0 (23)	38.6 (23)	37.6 (22)	37.1 (22)	36.2 (22)	34.6 (21)	33.1 (20)	32.1 (19)	31.3 (19)	30.8 (19)	29.7 (20)
1986	29.2 (20)	29.8 (20)	29.9 (19)	29.2 (18)	27.8 (17)	26.3 (16)	25.0 (15)	23.5 (15)	22.3 (14)	21.5 (13)	20.7 (11)	20.3 (10)
1987	19.4 (8)	18.3 (8)	17.6 (8)	17.4 (9)								

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 1975.

The predicted sunspot numbers are derived from a regression analysis based on cycles 8 through 20. Tests indicate that earlier cycles are from a different statistical population.

This prediction for the new sunspot cycle is based on an assumption that sunspot minimum occurred in July 1976 with a smoothed number of 10. The predictions will be changed after sunspot minimum has been observed.

H α SOLAR FLARES

SEPTEMBER 1976

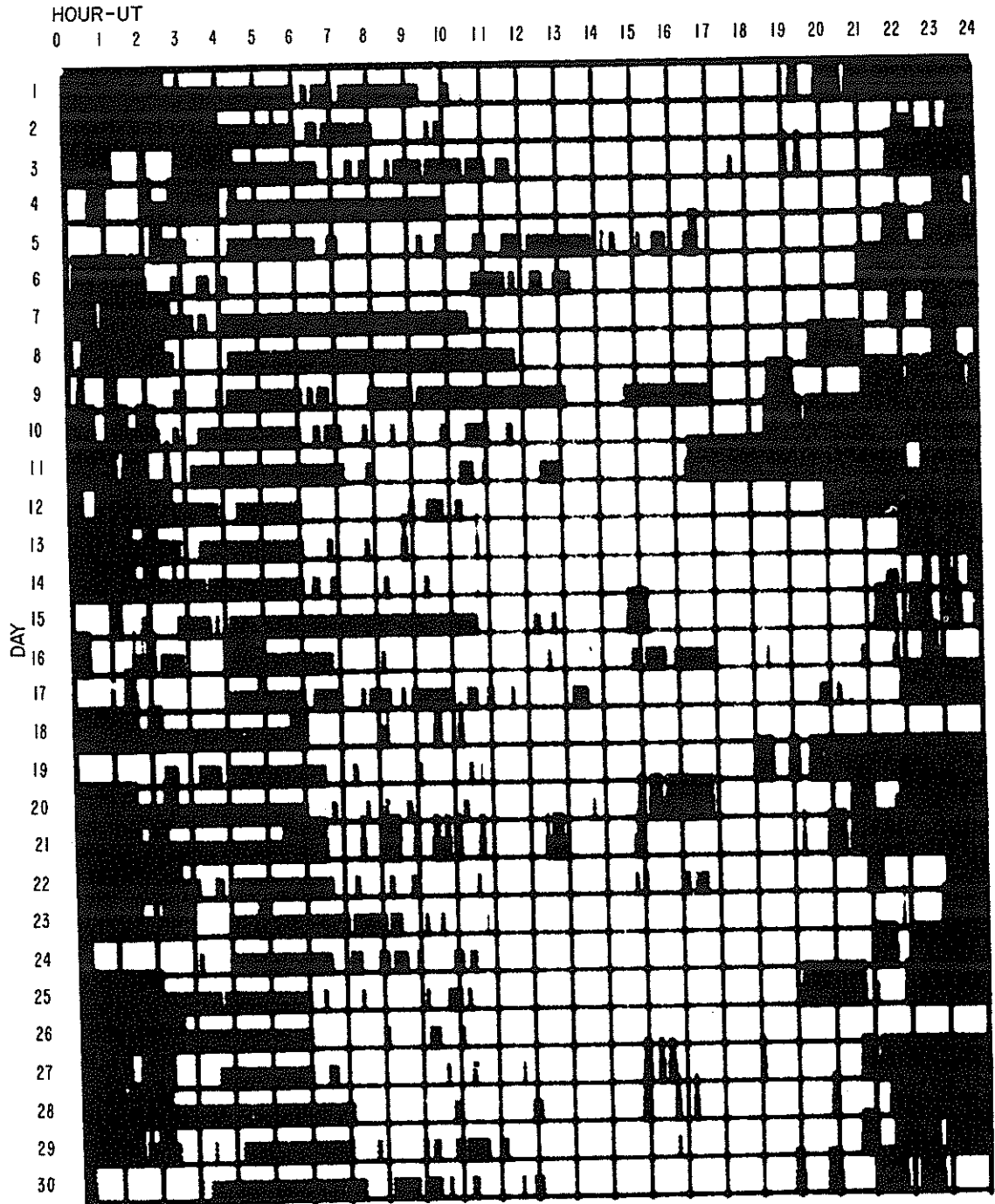
OBSERVATORY	OBSERVED UT				LOCATION					DURATION MIN.	IM-POR-TANCE	OBS. COND. TYPE	MEASUREMENTS			REMARKS	
	DATE	START	MAX. PHASE	END	APPROX.		CENTRAL DISTANCE	MCMATH PLAGE REGION	CMP DAY				TIME - UT	MEAS. AREA MIL of Disk	CORR. AREA Sq. Deg.		
					LAT.	MER. DIST.											
BUCA HERS	01	0650		0735	N19	W57	.872		27.0	45	SB	C	0703	75	1.4		
	01	0836E	0836	0852	N20	W60	.896		26.9	160	SF	S	0842	28	.6	D	
ATHN	03	0615E	0627	0636	N18	W84	.997		27.0	210	SN	2	C				DE
CATA	03	0825E	0835	0840	N14	E05	.320		3.7	150	SN	2		0835	56	.6	
BUCA	03	0830		0840	N15	E04	.332		3.7	10	SN	C		0835	53	.6	
BUCA	03	0905	0910	0930	N15	E06	.340	14395	3.8	25	1B	C		0910	272	2.8	E
BUCA	03	0919	0923	0925	N21	W90	1.000		26.6	6	SF	C		0923	32		D
ATHN	03	1122	1126	1136	N16	W88	1.000		26.9	14	SN	3	C				DE
MCMA	03	1353	1356	1400	N13	E06	.309	14395	4.0	7	SN	C		1356	30	.3	OH
ATHN	03	1355	1358	1403	N15	E 3	.329		3.8	8	SN	3	C		32		DE H
MCMA	03	1438	1439	1453	N13	E03	.297	14395	3.8	15	SF	C		1439	30	.3	E
BUCA	04	0715		0750	N17	W08	.380		3.7	35	SF	C		0720	53	.6	
BUCA	04	0810		0825	N15	W08	.350	14395	3.7	15	1N	C		0812	214	2.2	E
BUCA	04	0840		0905	N17	W08	.380		3.8	25	SF	C		0855	53	.6	E
CATA	04	1025	1045	1055	N15	W08	.350		3.8	300	SN	2		1045	140	1.5	
MCMA	04	1620	1622	1638	N15	W13	.388	14395	3.7	18	SF	C		1622	30	.3	E
PALE	06	0147E	0147U	01480	N17	W28	.567		4.0	10	SF	1	C		80		S H
MCMA	06	1651	1652	1657	N18	W38	.685	14395	3.9	6	SF	C		1652	50	.7	E
MCMA	06	1810	1817	1825	N12	E68	.936	14408	11.9	15	SN	C		1817	30	.9	D
ATHN	07	0808E	0811	0819	N20	W40	.717		4.3	110	SF	3	C		32		DE
ISTA	07	0815		0820	N22	W48	.803		3.7	5	SN			5			
MCMA	08	1208	1215	1233	S22	E42	.704	14416	11.7	25	SN	C		1215	25	.4	OH
CATA	10	0930	0930	0945	S21	E15	.391		11.5	150	SN	2		0930	84	1.0	
MCMA	14	1832	1843	1855	S22	W46	.750	14416	11.3	230	SF	C		1843	40	.6	E
RAMY	17	1805	1806	1905	N23	E80	.990	14429	23.8	600	1N	3	C				DE R
RAMY	17	1806E	1814	1831	N20	E80	.989		23.8	250	SN	3	V				DE R
MCMA	17	1833E		1833	N18	E85	.998	14429	24.1		1B	P		1833			D
RAMY	18	1456	1503	1530	S10	E31	.526		20.9	34	SN	4	C		153		FDE
RAMY	18	1457E	1504	1519	S12	E30	.519		20.9	220	SN	4	V		159		FOE
MCMA	18	1500	1504	1530	S13	E32	.550	14425	21.0	30	SN	C		1504	100	1.3	E
CATA	20	1045	1050	1100	S14	E06	.230		20.9	150	SF	2		1050	112	1.2	
ATHN	21	1223	1231	1231	S13	W 6	.216		21.1	80	SB	4	V		190		U F
ATHN	21	1223	1231	1258	S13	W 6	.216		21.1	35	SB	4	C		190		U F
RAMY	21	1224E	1228	1240	S11	W14	.285	14425	20.5	160	1F	2	V		222		F
RAMY	21	1228E	1228	1232	S15	W 7	.254	14425	21.0	40	1F	2	C		222		F
MCMA	21	1314E		1317	S12	W08	.221	14425	21.0	30	SN	P		1316	150	1.6	E
BUCA	24	0756		0825	N22	W04	.406		24.0	29	SN	C		0801	161	1.7	
ATHN	24	0806E	0813	0824	N23	W 7	.432		23.8	180	SN	2	C		48		F

"Remarks":

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

- N = Continuous spectrum shows effects of polarization.
- O = Observations have been made in the calcium II lines H and K.
- P = Flare shows helium D₃ in emission.
- Q = Flare shows the Balmer continuum in emission.
- R = Marked asymmetry in H α line suggests ejection of high velocity material.
- S = Brightness follows disappearance of filament (same position).
- T = Region active all day.
- U = Two bright branches, parallel (||) or converging (Y).
- V = Occurrence of an explosive phase: important and abrupt expansion in about a minute with or without important intensity increase.
- W = Great increase in area after time of maximum intensity.
- X = Unusually wide H α line.
- Y = System of loop-type prominences.
- Z = Major sunspot umbra covered by flare.

INTERVALS OF NO FLARE PATROL OBSERVATION
FOR PRECEDING SOLAR FLARE TABLE
SEPTEMBER 1976



Observatories included in total patrol:

- | | | | |
|-----------|--------------|----------------|-------------|
| Athenes | Herstmonceux | McMath-Hulbert | Tehran |
| Bucharest | Istanboul | Palehua | Upice |
| Catania | Kodaikanal | Ramey | Wendelstein |

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

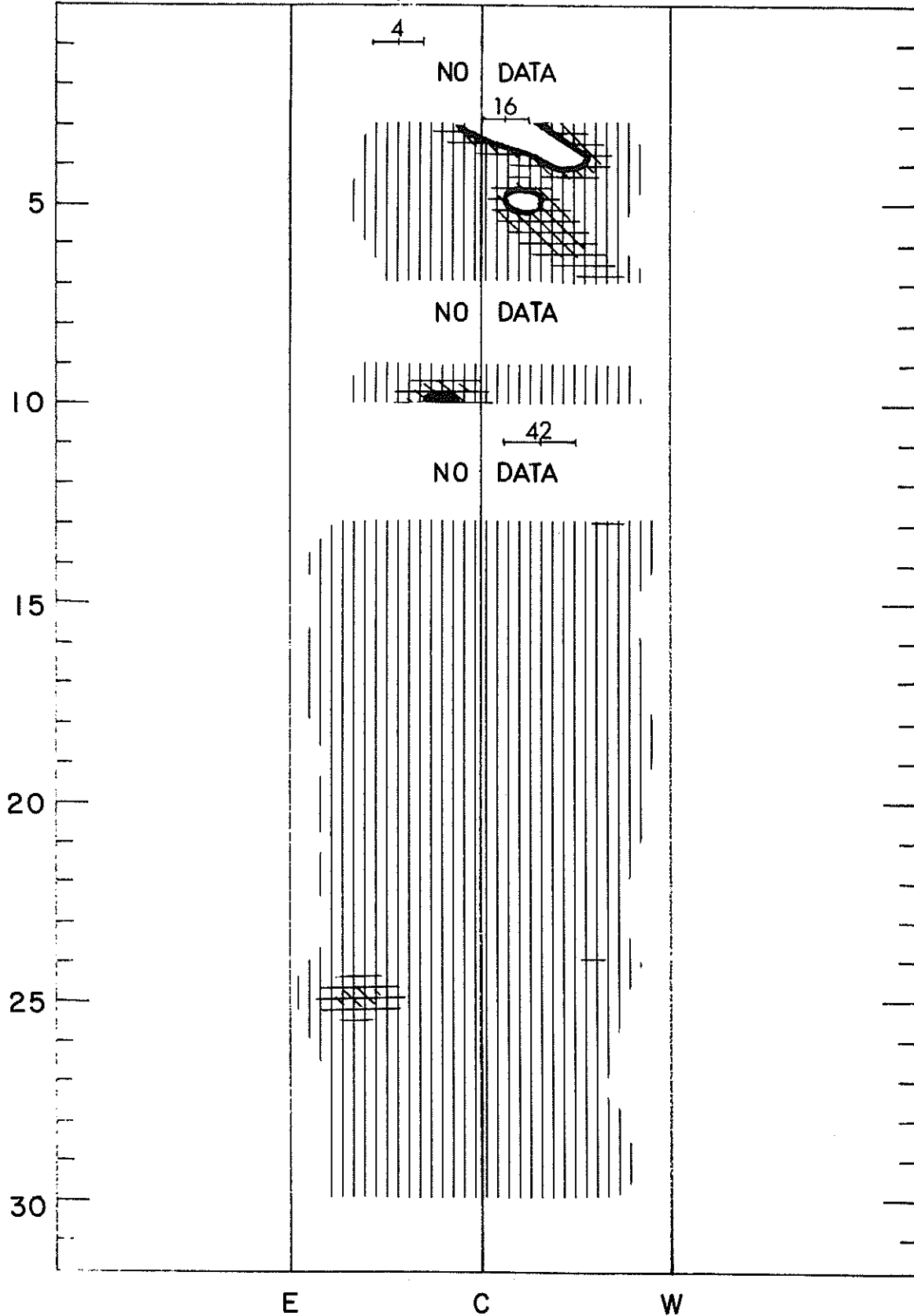
12
Sep 76

SOLAR RADIO EMISSION INTERFEROMETRIC OBSERVATION

SEPTEMBER 1976

Nançay

169 MHz

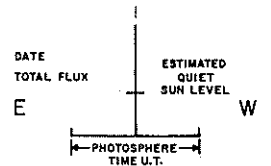
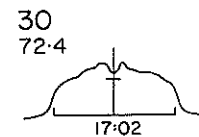
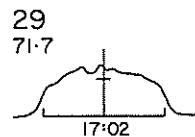
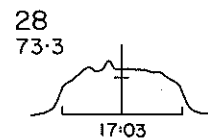
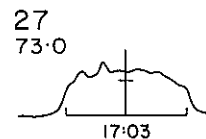
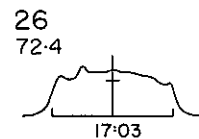
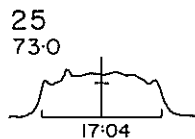
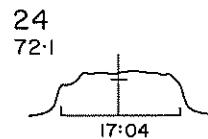
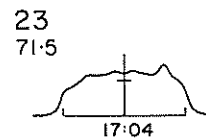
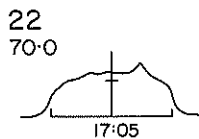
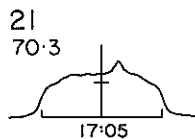
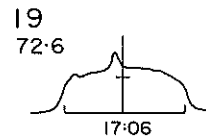
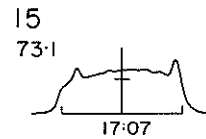
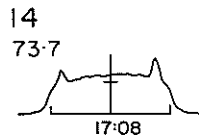
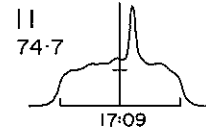
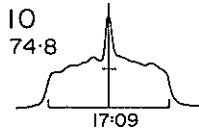
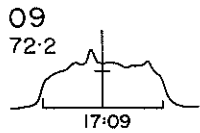
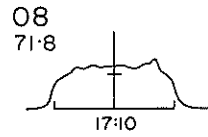
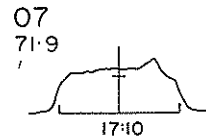
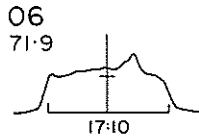
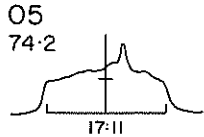
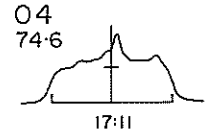
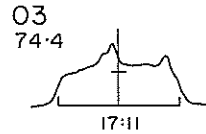
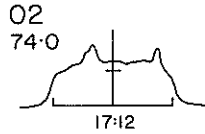
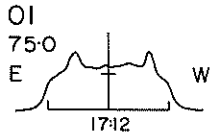


EAST-WEST SOLAR SCANS

SEPTEMBER 1976

ALGONQUIN RADIO OBSERVATORY
CANADA

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



SOLAR RADIO EMISSION SELECTED FIXED FREQUENCY EVENTS

SEPTEMBER 1976

	FREQUENCY STATION	TYPE	STARTING TIME	TIME OF MAXIMUM	DURATION	FLUX DENSITY $10^{-22} \text{ Wm}^{-2} \text{ Hz}^{-1}$		INT	REMARKS
			UT	UT	MINUTES	PEAK	MEAN		
1	2695 BOUL	3 S	2200	2200.5	1	53	20		
	8800 MANI	22	2238	2254.5	73.3	12.4	2.5		
	2695 PENT	40 F C	2238	2251	22	27	10.8		
	2695 MANI	4	2239.3	2250.8	22.1	26.3	7.5		
	2695 BOUL	45 C	2241.5	2252	19.5	29	9		
	2695 PENT	29 PBI	2300	2300	150	4.4	2.2		
	2695 BOUL	1 S	2302.5	2303	2	4	1		
	2695 BOUL	1 S	2355	2356	1.5	3	1		
2	2695 BOUL	3 S	1700	1701	1.5	22	7		
3	8800 MANI	3	0559.5	0602.5	18.2	11.7	4.7		
	2695 MANI	3	0559.6	0602.4	15.2	23.8	11.9		
	2800 OTTA	3 S	1349.9	1350	0.5	3	1.5		
	2695 PENT	240 R	2305	2410	65	2.8	1.3		
	2695 PENT	24P R	2410		80 D	2.6			
4	2800 OTTA	20 GRF	1615	1620	20	0.8	0.4		
	2695 BOUL	3 S	2350.5	2351.5	1.5	7	2		
6	2695 MANI	4	0133.8U	0136.4U	7.7U	21 U	8.4U		
	2695 PENT	4 S/F	0134	0136.5	4	34	15		
	2695 PENT	29 PBI	0138	0138	10	9.6			
7	2695 BOUL	1 S	1741	1741.5	1.5	4	1		
	2695 BOUL	45 C	2148.5	2157.5	11	15	5		
8	2695 SGMR	40 F	1602.6	1609.3	6.9	11.4	6.8		
9	2800 OTTA	3 S	1430.9	1431	0.5	5.4	2.7		
	2695 BOUL	0 S	1940	1941	2	20	7		
	2695 BOUL	40 F	2059.5	2101	6	6	2		
10	2800 OTTA	20 GRF	1630	1715	90	1	0.5		
	2695 BOUL	45 C	1651	1652	3	30	12		
	2695 BOUL	3 S	1723	1723.5	1	7	2		
	2695 BOUL	0 S	1725	1725.5	1	5	2		
	2695 BOUL	3 S	1728	1728.5	1.5	6	3		
	2800 OTTA	27 RF	1820		155	1	0.9		
	2800 OTTA	24 R	1820	1840	20	1	0.5		
	2800 OTTA	24P R	1840		110	1			
	2800 OTTA	20 FAL	2030	2035	25	-1	-0.5		
	11	2800 OTTA	20 GRF	1610	1613	15	0.8	0.4	
12	2695 BOUL	45 C	1234	1238	18.5	37	13		
14	2800 OTTA	20 GRF	1830		50	0.8	0.5		
	2695 BOUL	3 S	1933	1933.5	3	16	3		
15	2800 OTTA	1 S	1735	1735.4	1	2.8	0.9		
16	2695 BOUL	3 S	0015	0016	2	10	3		
	2800 OTTA	240 R	1430	1455	25	0.8	0.4		
	2800 OTTA	24P R	1455		215	0.8			
	2800 OTTA	240 R	1830	2030	120	1.4	0.7		
	2800 OTTA	24P R	2030		270 D	1.4			
	2800 OTTA	20 GRF	2110		60	1.2	0.3		
17	2800 OTTA	21 GRF	1800	1825	225	5.2	2.6		
	2800 OTTA	4 S/F	1803.5	1804.9	4	17.4	5.8		
	2695 SGMR	4 S/F	1803	1804.9	4.2	22	0.6		
	2695 BOUL	4 SF	1803	1806	5	18	6		
18	2800 OTTA	22 GRF	1458	1504	25	1	0.5		
21	2800 OTTA	22 GRF	1220	1238	130	2.8	1.5		

Observatories:

BOUL = Boulder MANI = Manila 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 + |

PIONEER VI

SEPTEMBER 1976

Date Sept 1976	DSN Coverage (UT)	Data Time (UT)	ESP. (°)	SOLAR WIND				COSMIC RAY PROTONS ² (particles/sec)		
				AMES ¹		MIT		6-13 (Mev*)	13-175 (Mev**)	>175 (Mev)
				U _{H⁺} (km/sec) [†]	TAU (days)	U _{H⁺} (km/sec)	N _{H⁺} (H ⁺ /cc)			
23	0213-0703	0200	037.2	416.	3.44	405.	32.5	0.5	0.12	1.28
		0300		416.		404.	50.7	1.5	.2	2.54
		0400		477.		432.	74.8	.46	.12	1.25
		0500		477.		457.	97.8	.5	.11	1.34
		0600		506.		466.	39.7	.46	.13	1.31
		0700		506.		461.	37.5	.54	.13	1.32

¹ Wolfe - NASA/ARC² Simpson - University of Chicago

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

** Includes He >13 Mev/nucleons.

Q Used to indicate that a rate is at its quiescent level.

ESP = Earth-Sun Probe Angle.

† Peak velocity

Note: Data sampled hourly unless otherwise noted.

Note: 0300 UT data somewhat noisy.

SOLAR X-RAYS BY SATELLITE
SMS GOES

SEPTEMBER 1976

.5 - 4Å Hourly Averages (10⁻⁵ watts/m²)

MO	DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
9/	1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	2	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	6	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	7	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	8	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	9	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	10	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	11	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	18	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	19	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	20	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	21	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	23	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	24	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	28	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/	30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

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

SOLAR X-RAYS BY SATELLITE
SMS GOES

SEPTEMBER 1976

1 - 8 Å Hourly Averages (10^{-4} watts/m²)

NO	DA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
9/1	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/2	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/3	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/4	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/5	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/6	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/7	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/8	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/9	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/10	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/11	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/12	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/13	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/14	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/15	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/16	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/17	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/18	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/19	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/20	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/21	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/22	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/23	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/24	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/25	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/26	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/27	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/28	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/29	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
9/30	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B

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

INFERRED IP MAGNETIC FIELD

BARTELS ROTATION	DATE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27		
-1937	MAR 22	A	A	A	T	A	A	A	A	A	A	A	T	*TA	T	T	T	*T	A	T	A	T	A	T	A	T	T	A	A	
-1938	APR 18	A	A	A	A	A	A	A	A	A	A	A	T	A	A	T	-	T	T	-	T	T	A	A	T	-	A	T	A	T
1939	MAY 15	T	A	A	T	A	T	A	T	A	A	A	A	-	-	-	-	-	-	-	-	-	-	*	-	*	T	T	A	A
1940	JUN 11	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	T	T	T	A	T	A	T	T	T	*	T	T
1941	JUL 8	A	A	A	A	A	A	A	A	T	A	A	A	A	*	A	A	T	A	T	T	T	T	T	T	T	T	A	T	A
1942	AUG 4	A	A	A	A	T	A	T	A	A	A	A	A	A	T	-	A	T	*	T	T	T	-	A	T	T	T	A	T	A
1943	AUG 31	A	A	A	T	A	A	T	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	T	A	T	A
1944	SEP 27	A	T	A	A	T	T	A	A	A	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	A	A
1945	OCT 24	T	T	T	T	T	T	T	A	A	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	T	T
1946	NOV 20	A	T	A	T	T	A	T	A	A	A	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	T
1947	DEC 17	T	-	T	T	T	T	T	A	T	A	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	T
1948	1976 JAN 13	T	A	T	T	T	T	T	A	T	A	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	T
1949	FEB 9	T	A	T	T	T	T	T	T	A	A	T	A	T	A	A	A	A	T	T	T	A	T	T	T	T	T	T	T	T
1950	MAR 7	T	A	T	T	T	T	T	T	A	A	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	T
1951	APR 3	T	T	T	T	T	T	T	T	A	A	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	T
1952	APR 30	T	T	A	T	T	T	T	T	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
1953	MAY 27	T	-	T	T	T	T	T	T	A	A	A	A	A	A	A	A	A	A	A	A	T	T	T	T	T	T	T	T	T
1954	JUN 23	T	T	T	T	T	T	T	T	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
1955	JUL 20	T	A	A	T	T	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
1966	AUG 16	A	A	T	T	T	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
1967	SEP 12	A	T	A	A	T	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A

T = towards the sun A = away from the sun * = effect doubtful or not discernible - = 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 Antarctic Station of the USSR. The magnetometer of the U.S. Air Weather Service operated by the Air Force Geophysics Laboratory at the Thule Geopole Station is used for the second half of the day.

Note: The Thule magnetometer is being moved. No inferred fields based on it are available after Sept. 3, 1976.

AUGUST 1976 DATA

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H_α SYNOPSIS CHART

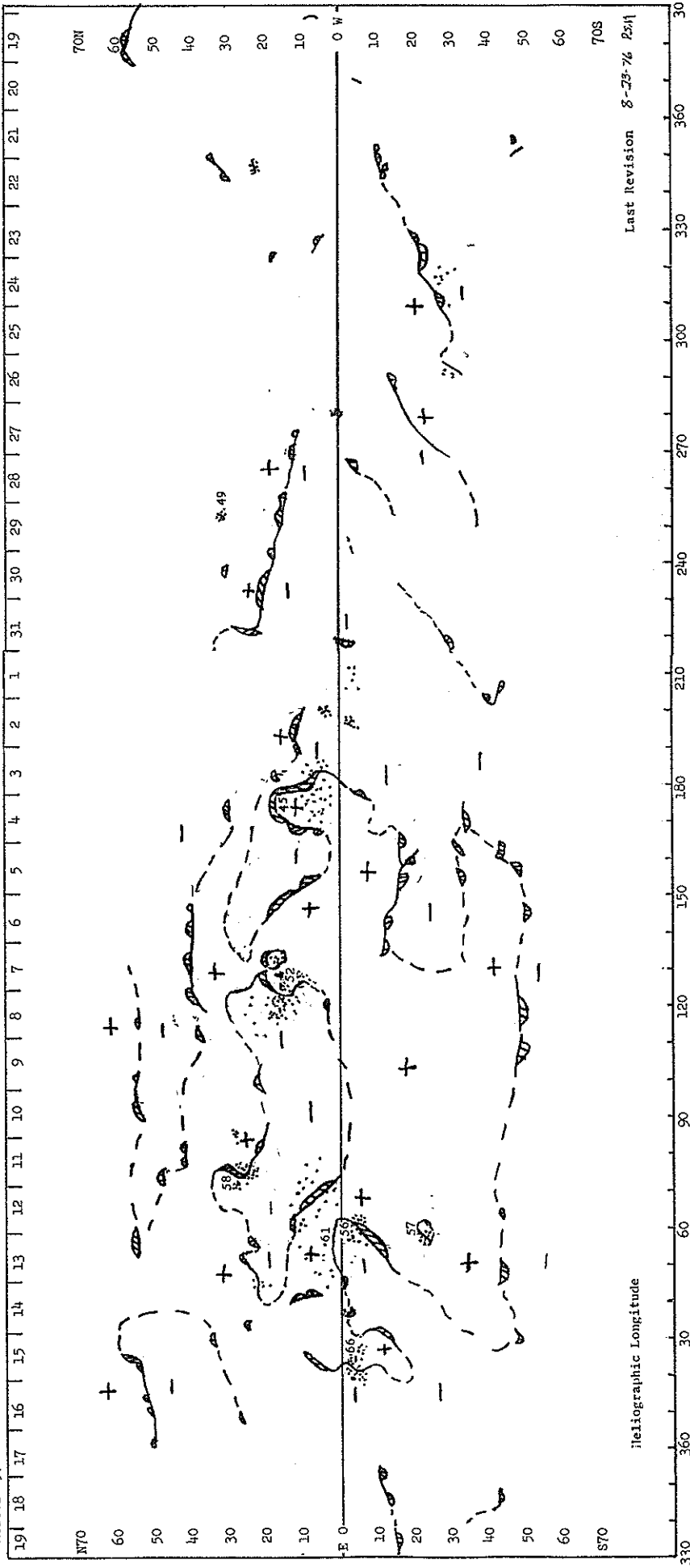
JULY 1976 - AUGUST 1976
AUGUST 1976

CARRINGTON ROTATION 1644 (preliminary)

CARRINGTON ROTATION 1644 (preliminary)

AUGUST 1976

JULY 1976



H_α SYNOPSIS CHART

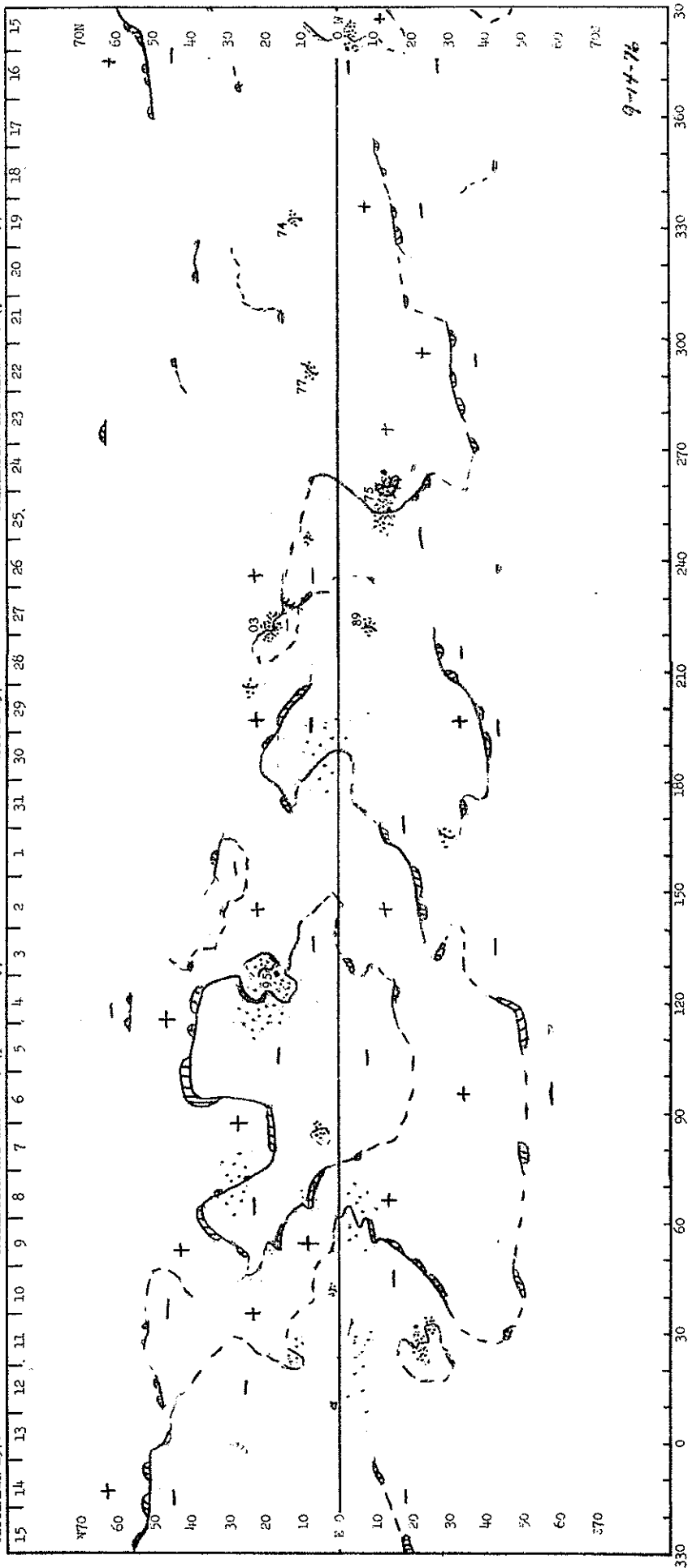
AUGUST 1976 - SEPTEMBER 1976

AUGUST 1976

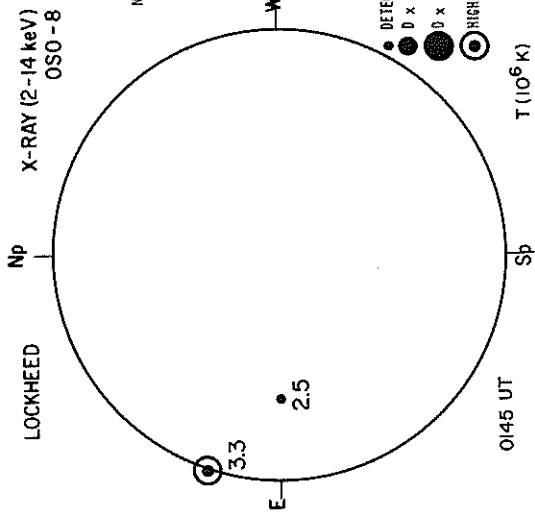
CARRINGTON ROTATION 1645 (preliminary)

CARRINGTON ROTATION 1645 (preliminary)

AUGUST 1976



AUGUST 1, 1976 (P = 1089, B₀ = 582, L₀ = 216.47)

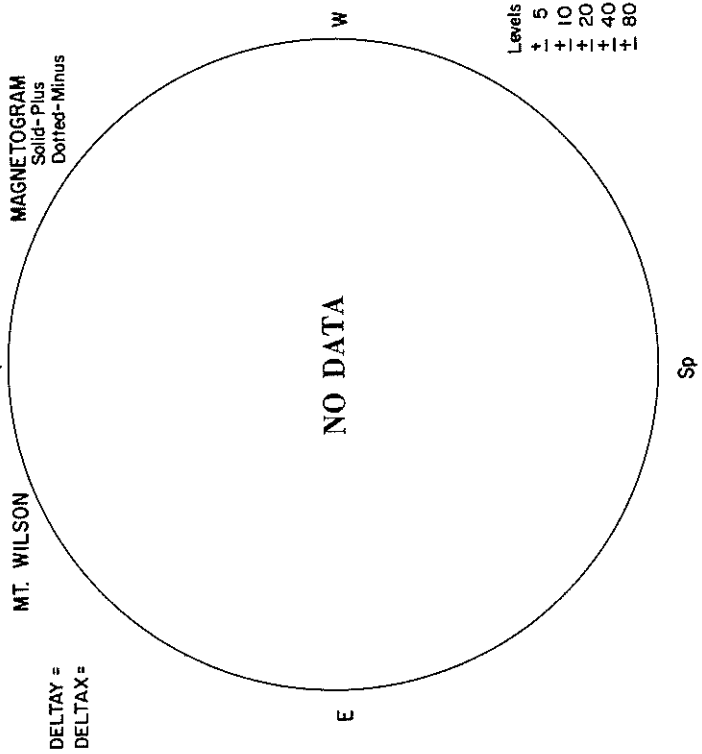
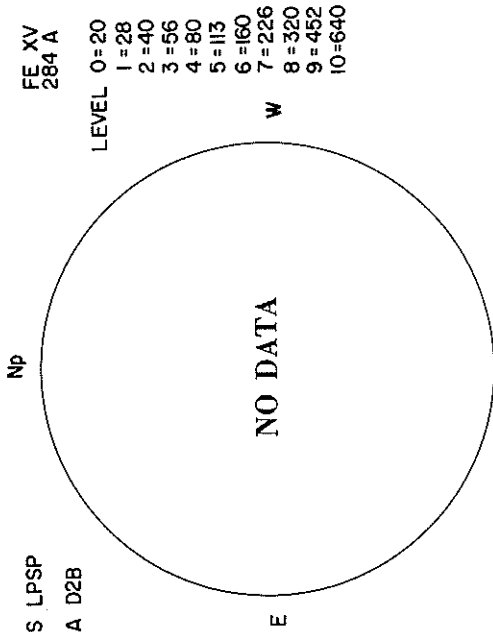
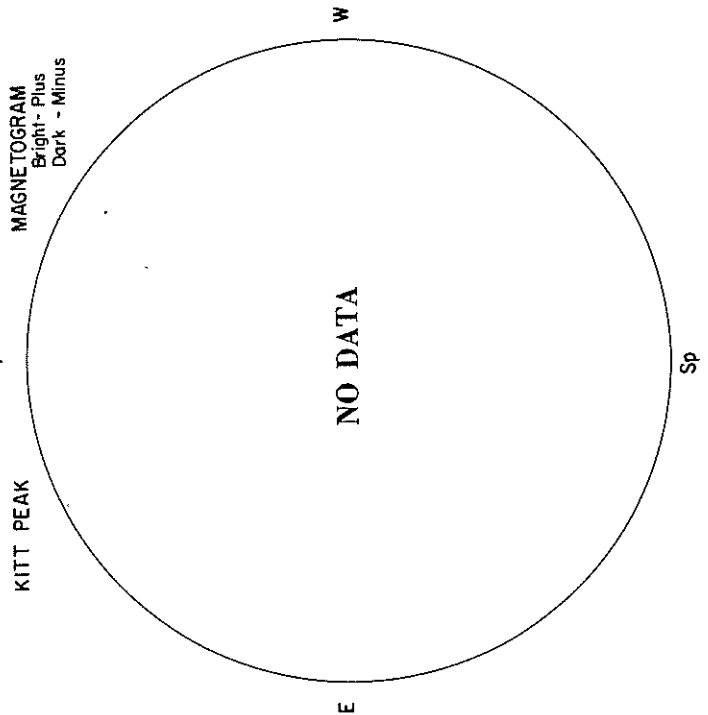


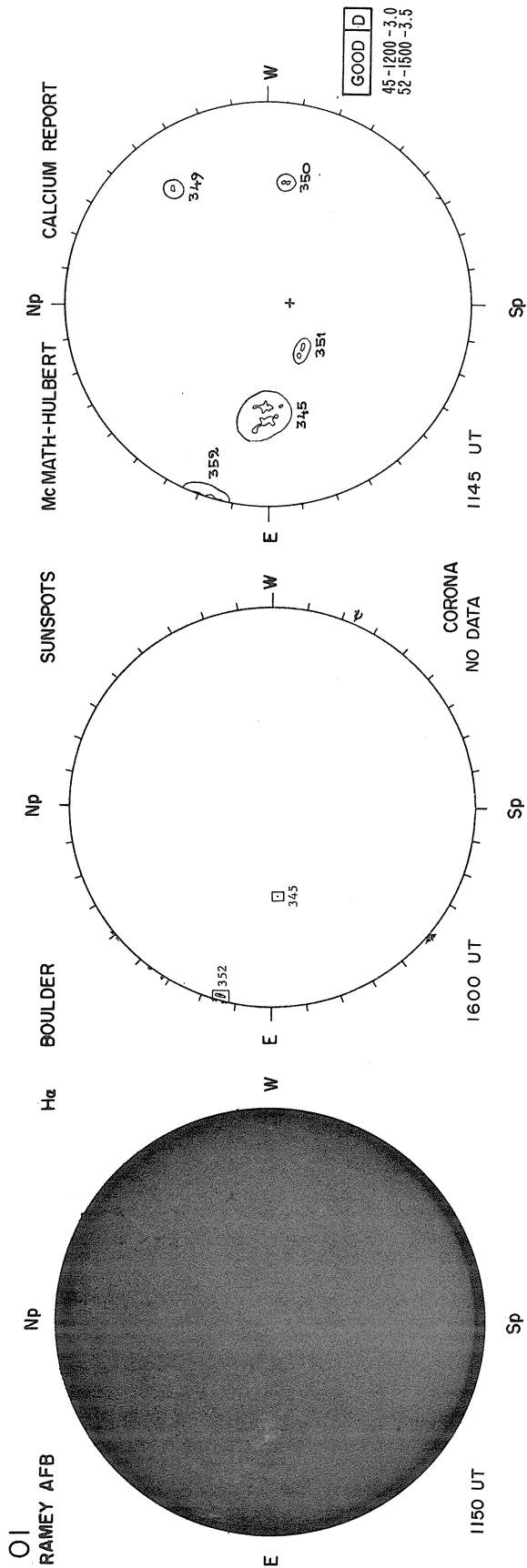
Note: The positions of the July 10, 1976 Lockheed X-ray map and the CNRS 284Å map were switched on page 44 of the last issue (#385, Part I) of *Solar-Geophysical Data*.

- DETECTABLE (D)
- D x 20
- D x 500
- ⊙ HIGHLY VARIABLE

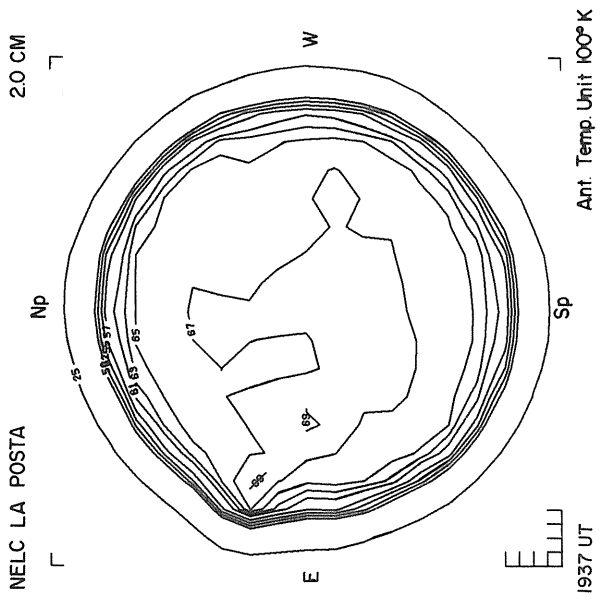
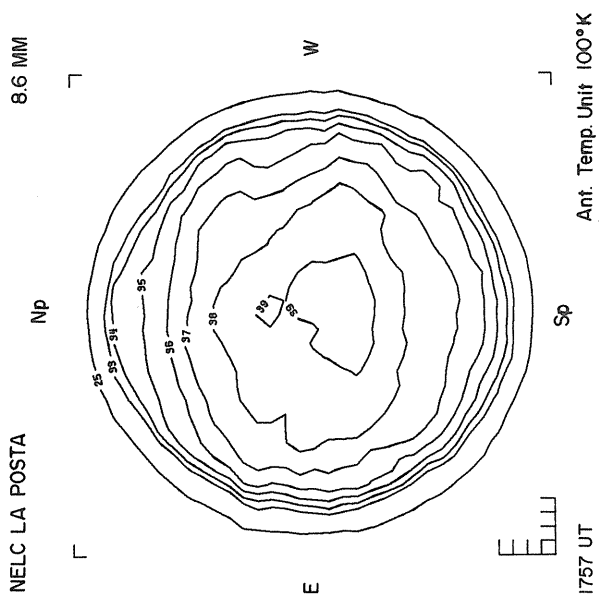
T (10⁶ K)

KITT PEAK
MAGNETOGRAM
Bright - Plus
Dark - Minus

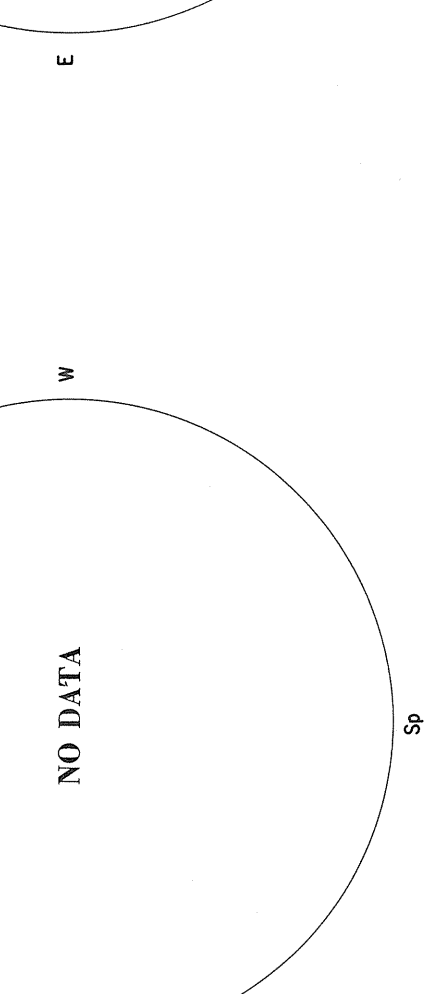
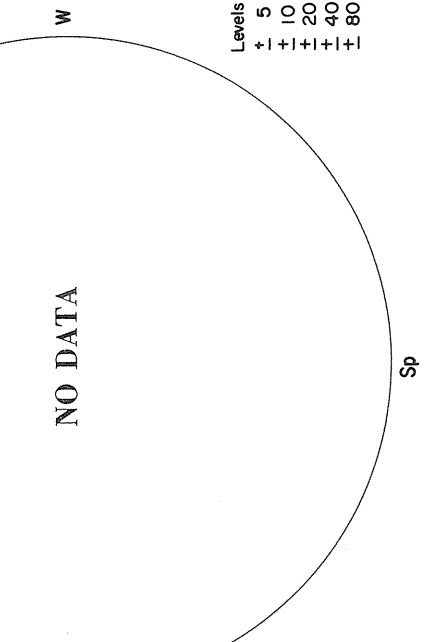
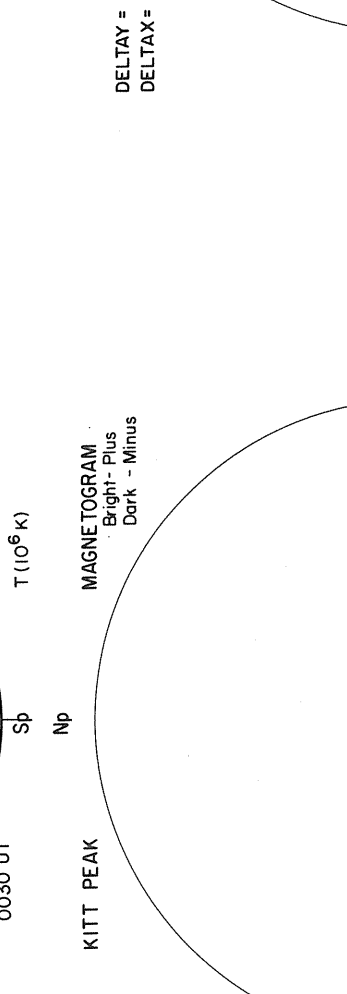
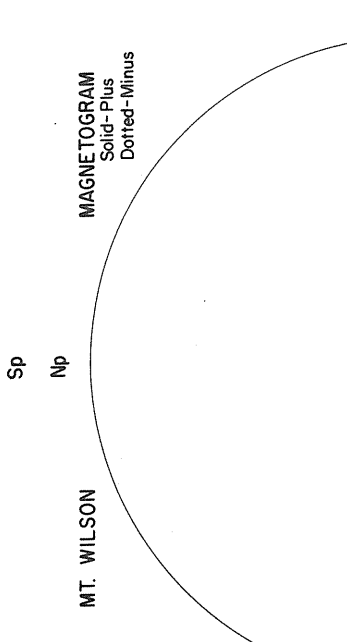
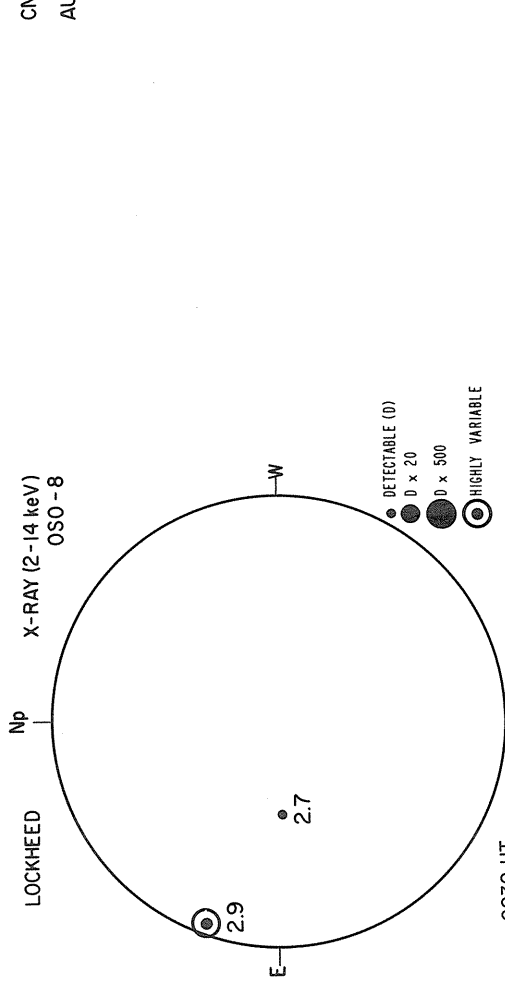
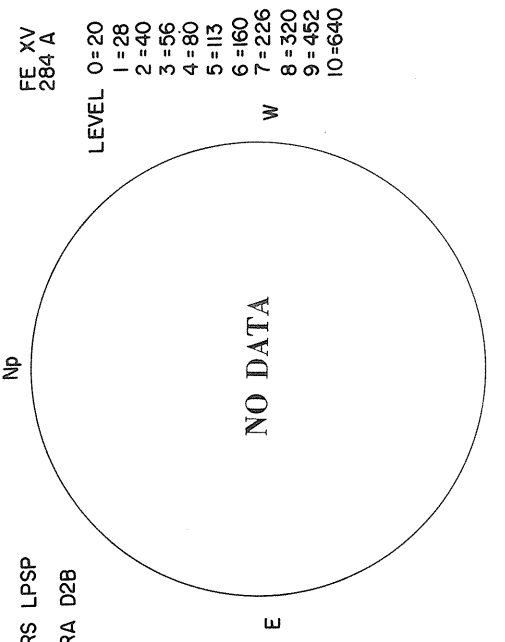




CORONA
NO DATA



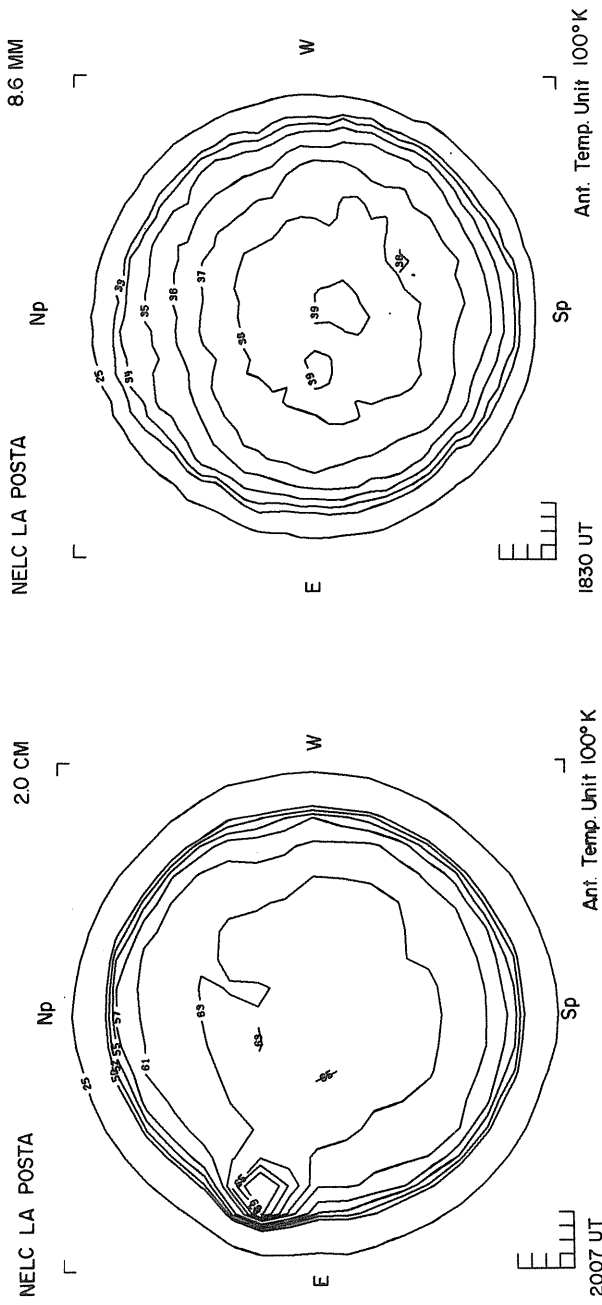
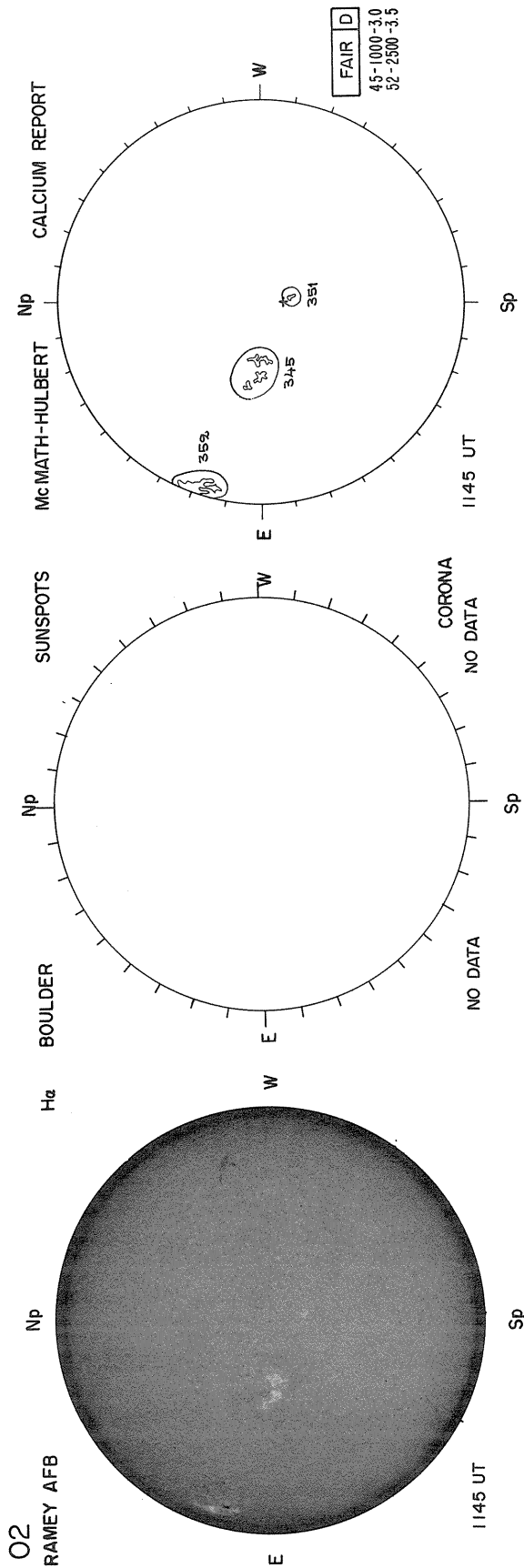
AUGUST 2, 1976 (P=11.28, B₀=5.89, L₀=203.24)



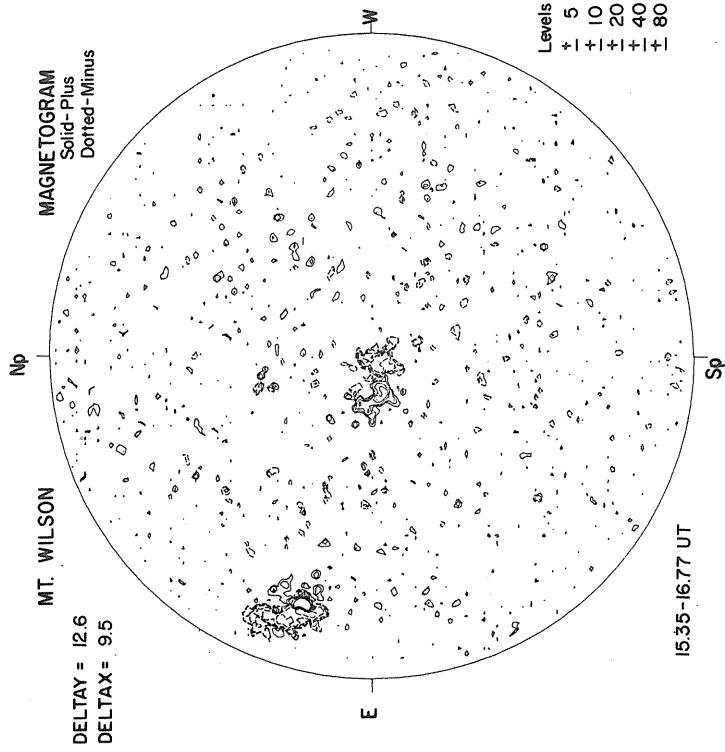
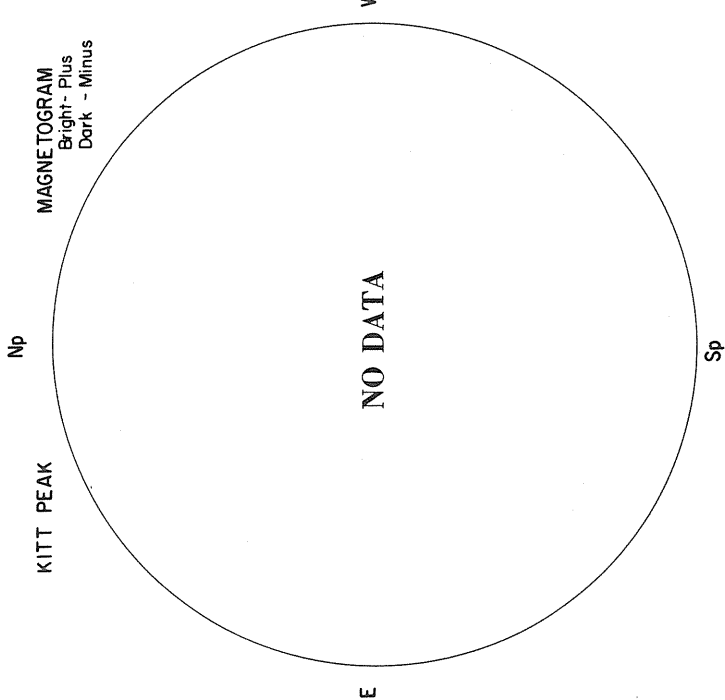
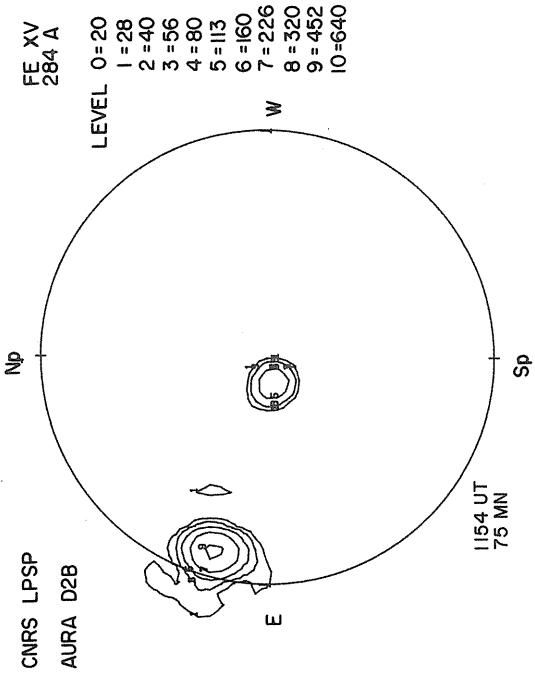
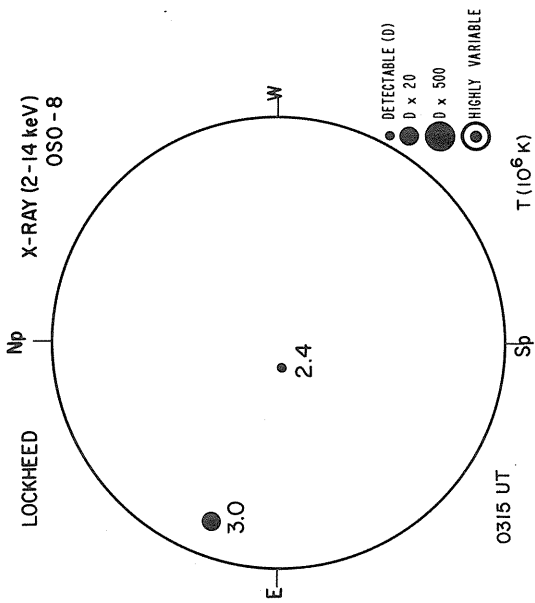
Levels
± 5
± 10
± 20
± 40
± 80

T (10⁶ K)

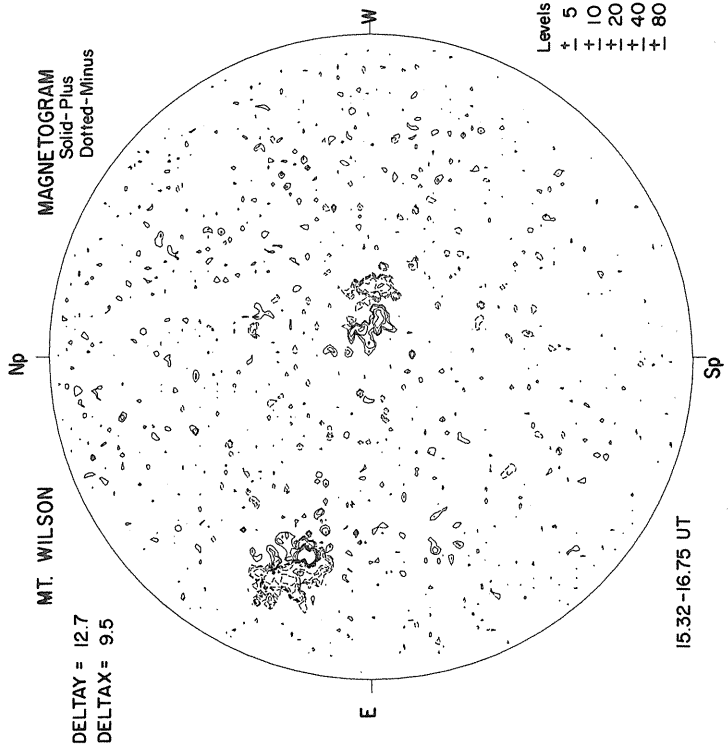
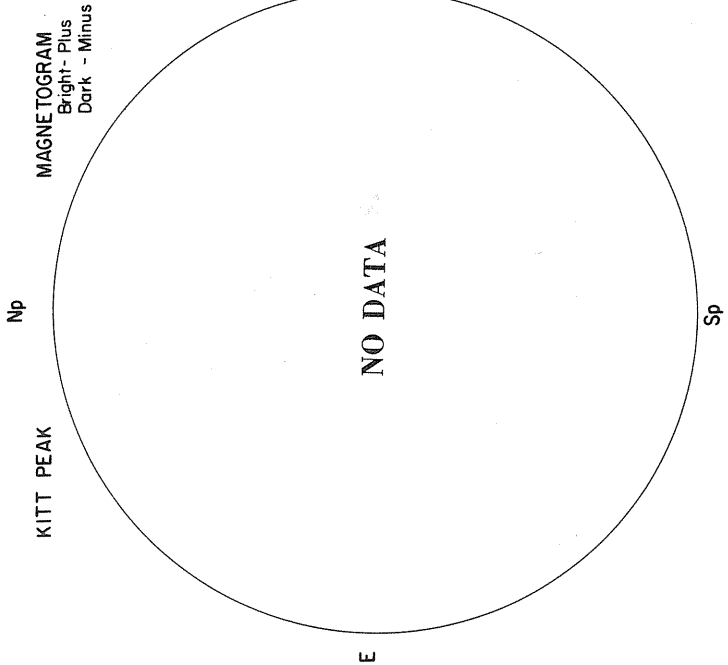
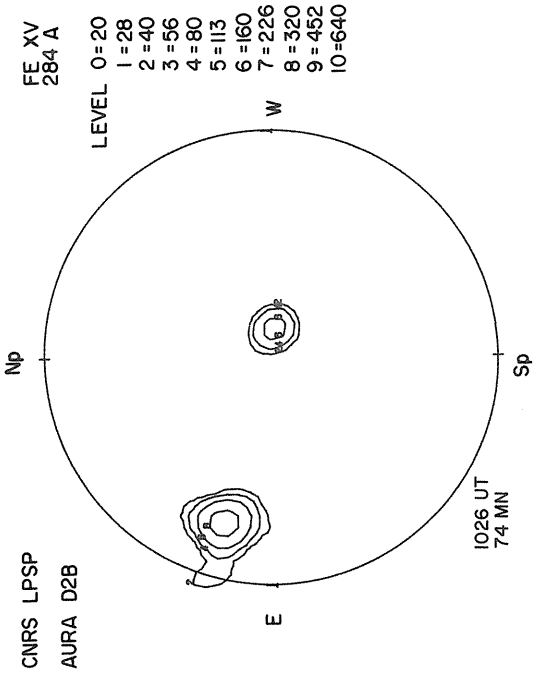
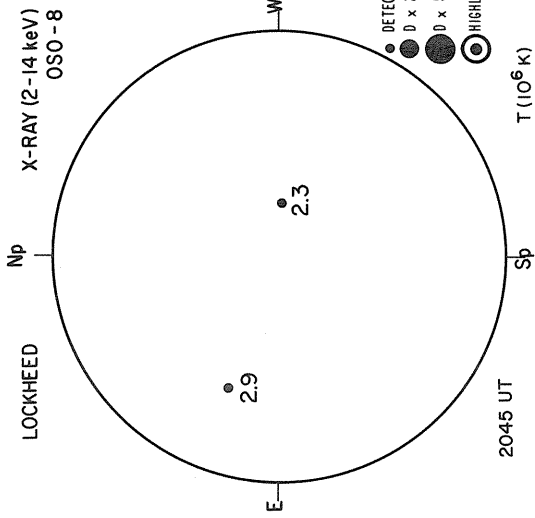
0030 UT

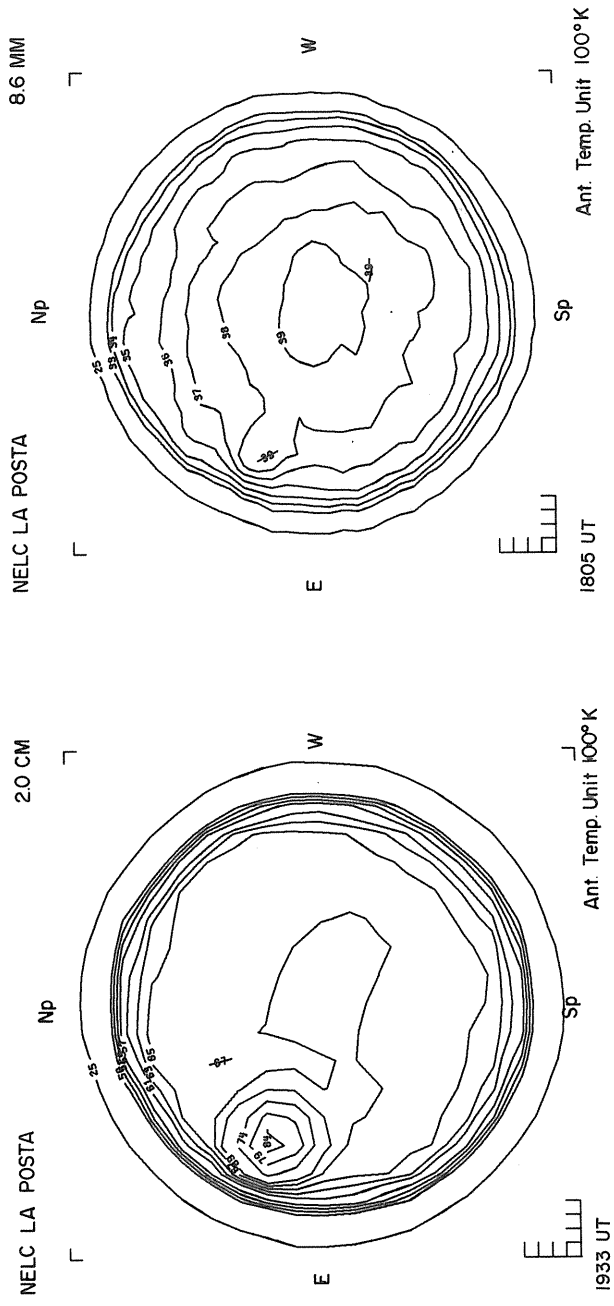
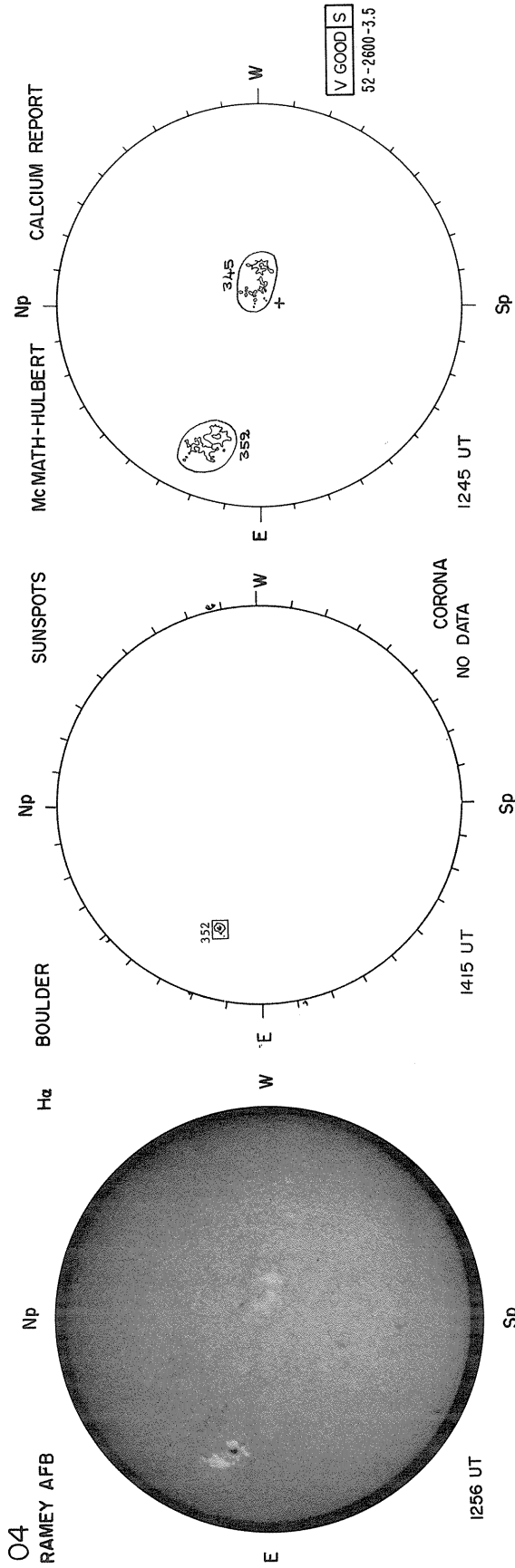


AUGUST 3, 1976 (P = 11.68, B₀ = 5.96, L₀ = 190.02)



AUGUST 4, 1976 (P = 12.06, B₀ = 6.03, L₀ = 176.79)

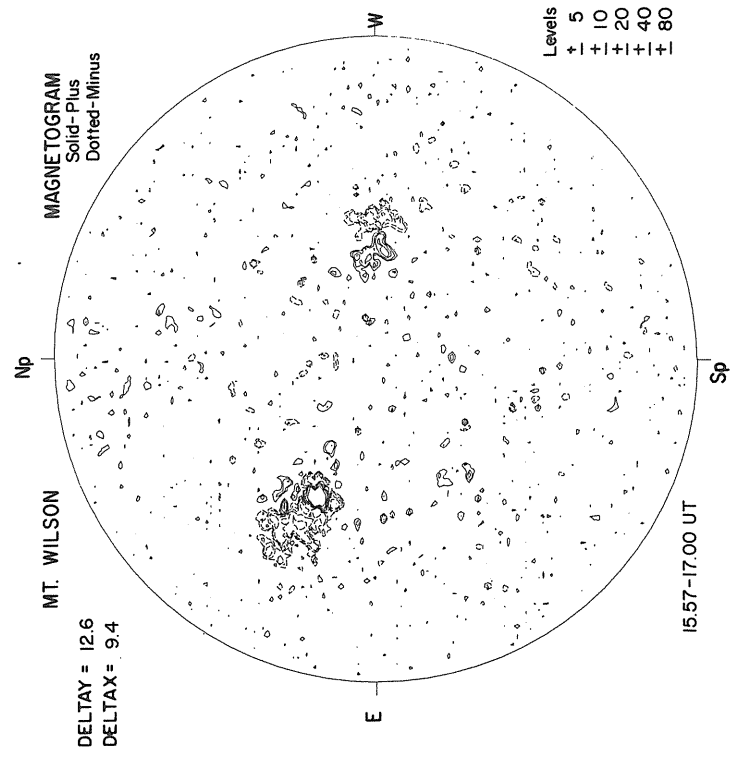
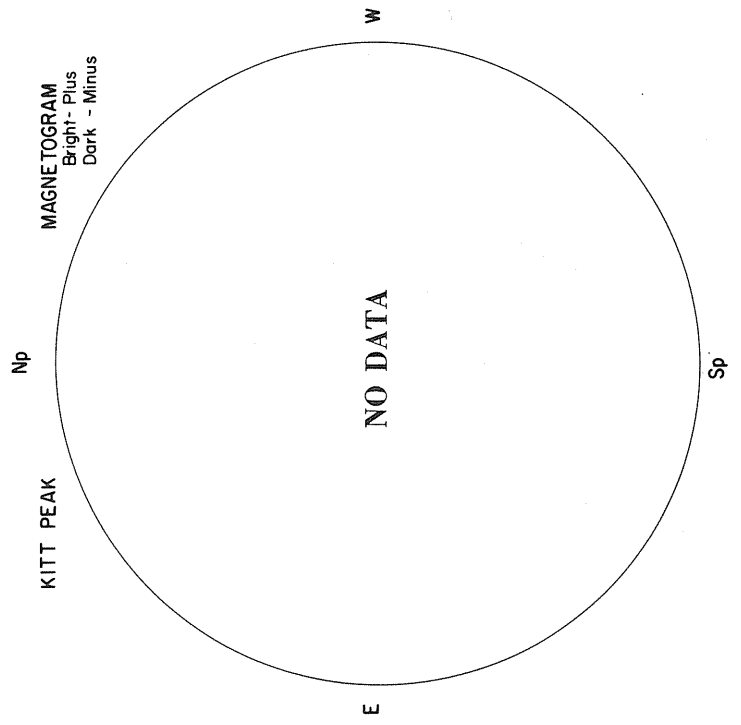
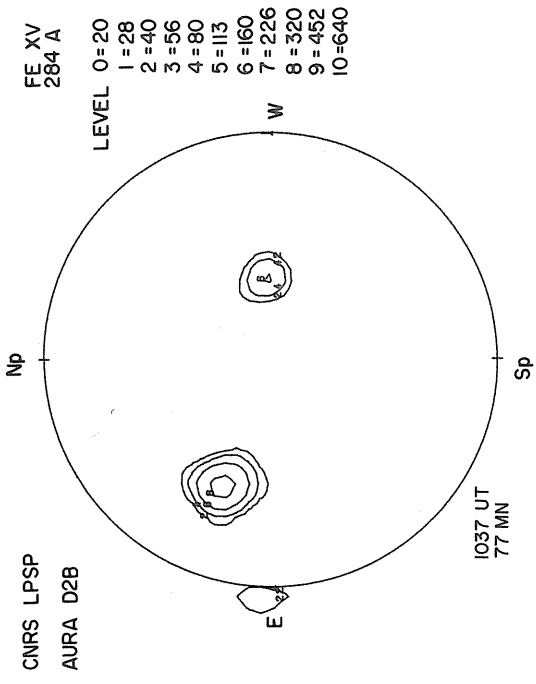
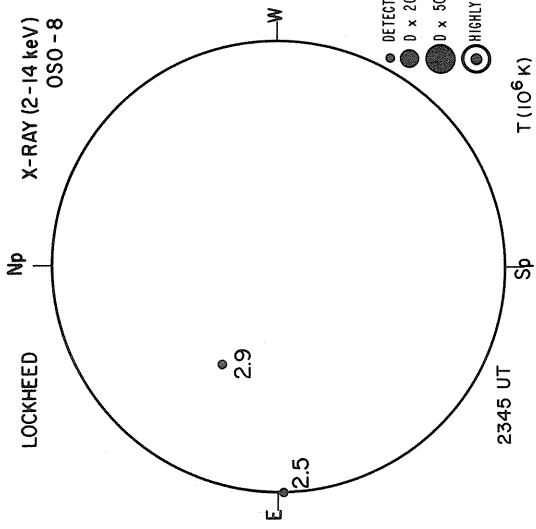




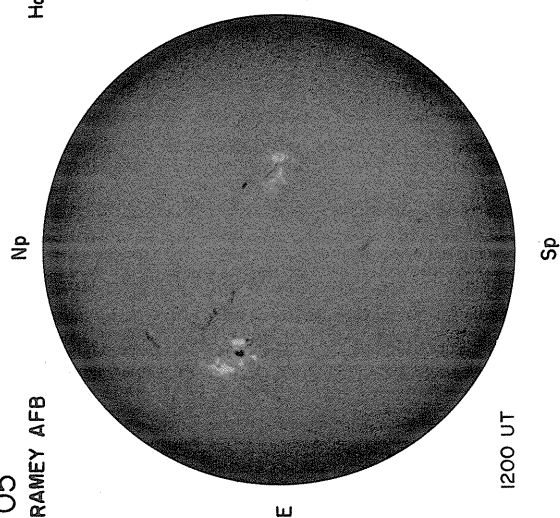
Ant. Temp. Unit 100°K

Ant. Temp. Unit 100°K

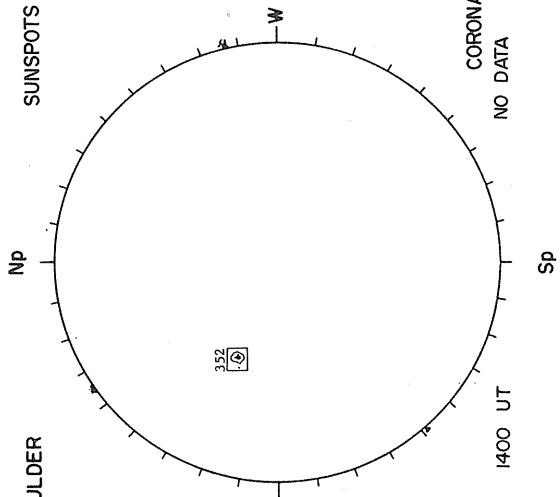
AUGUST 5, 1976 (P=12.45, B₀=6.09, L₀=163.57)



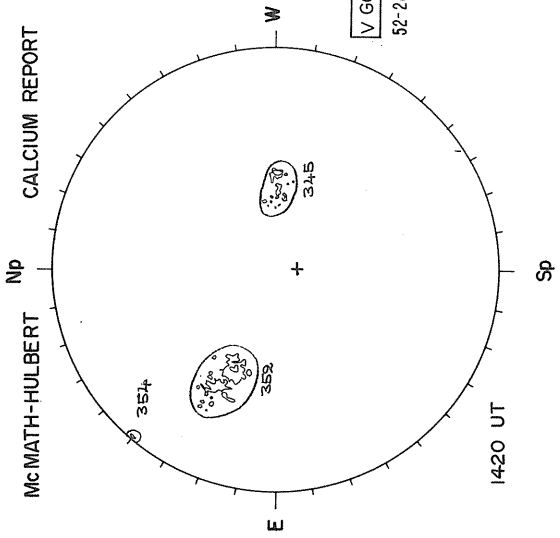
O5
RAMEY AFB



H α BOULDER

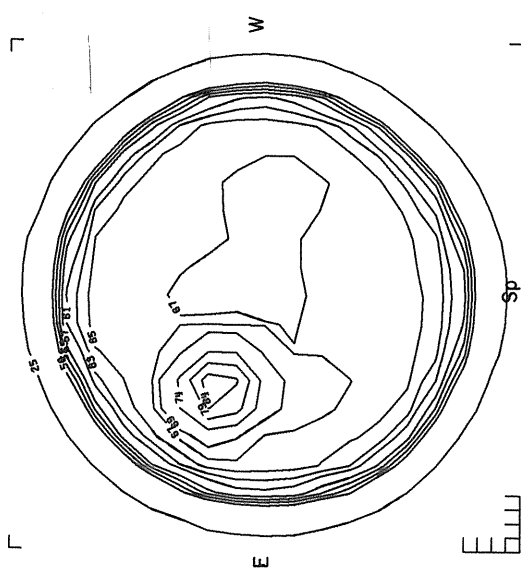


McMATH-HULBERT



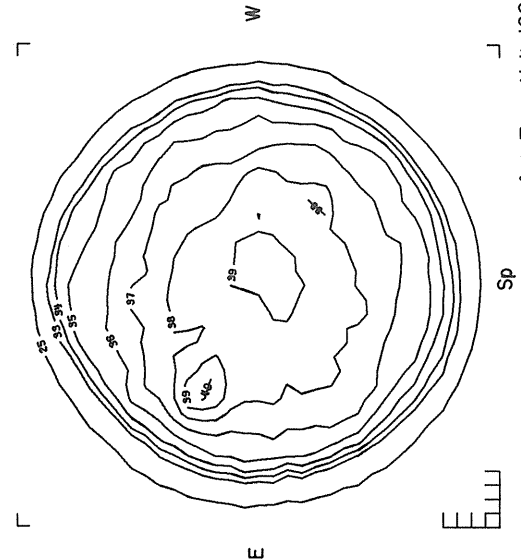
V GOOD'S
52-2800-4.0

NELC LA POSTA



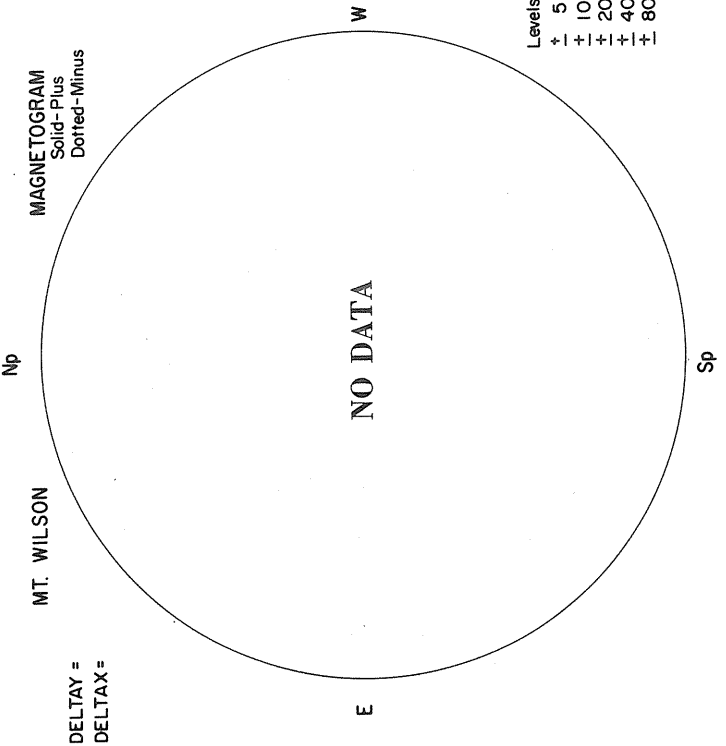
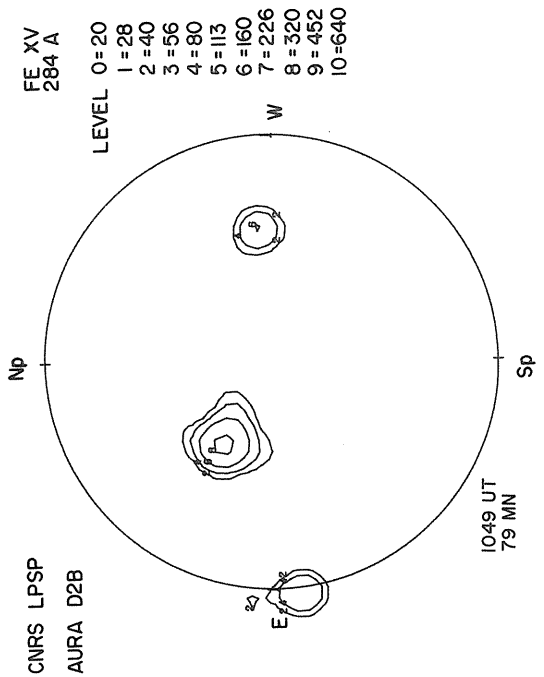
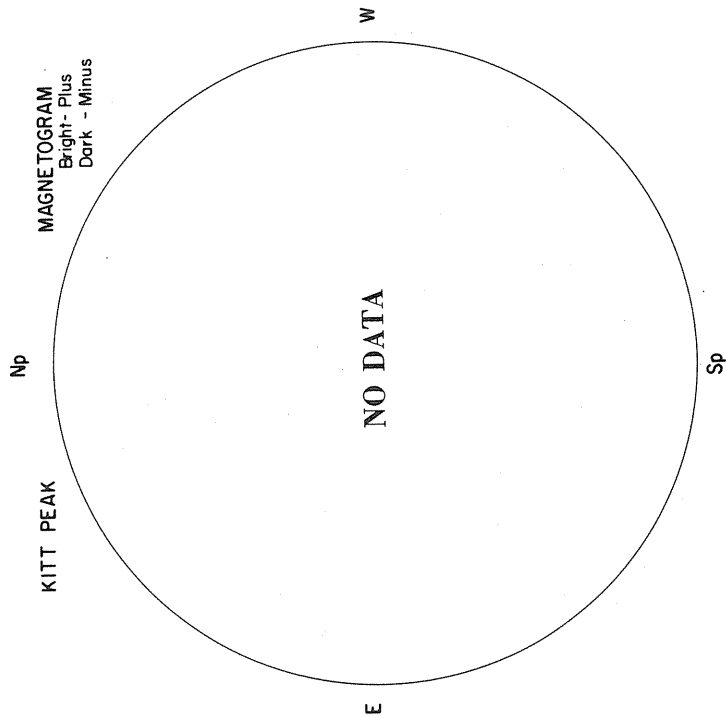
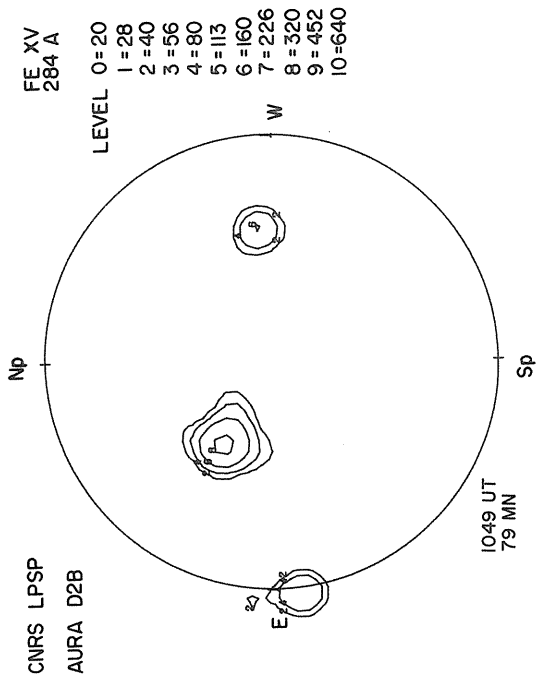
2.0 CM

NELC LA POSTA

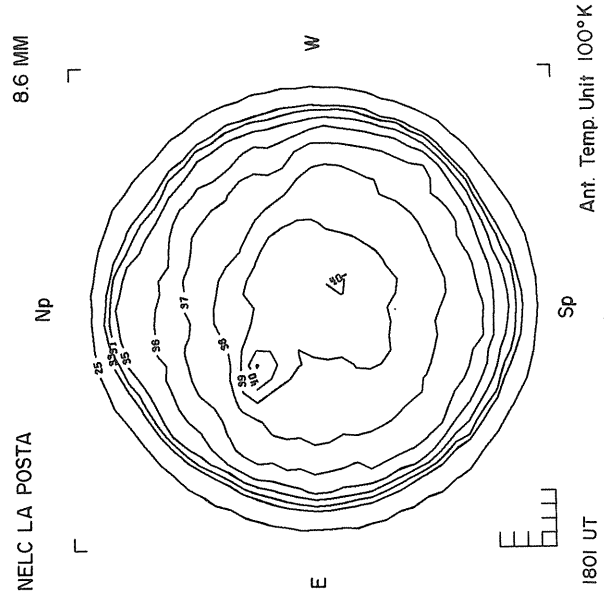
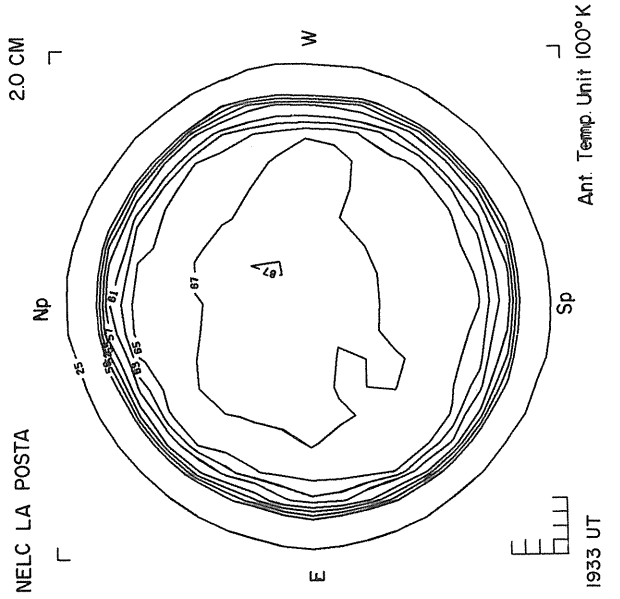
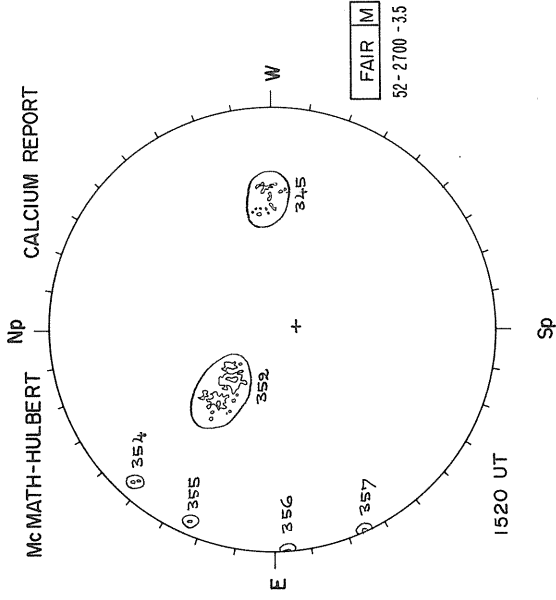
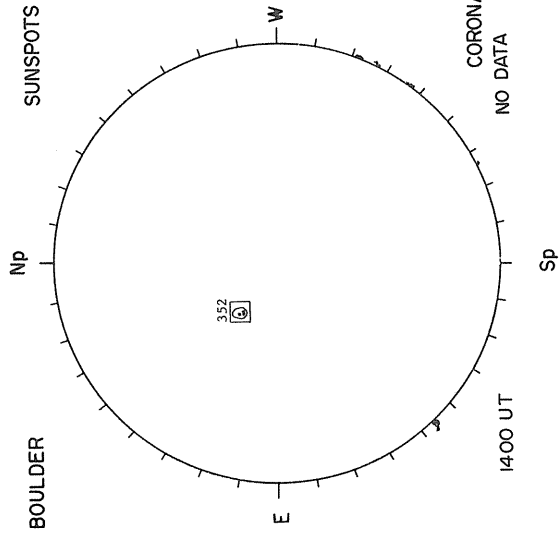
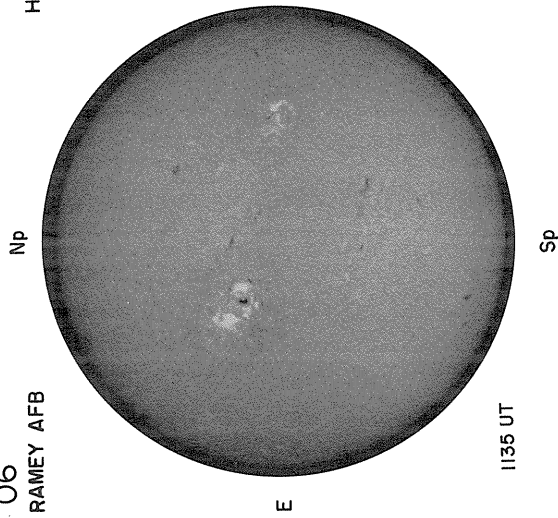


8.6 MM

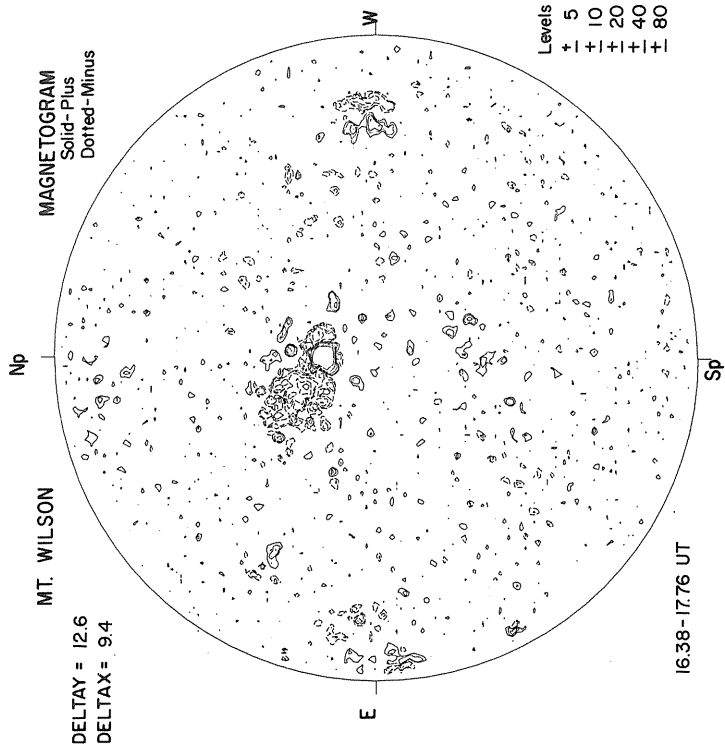
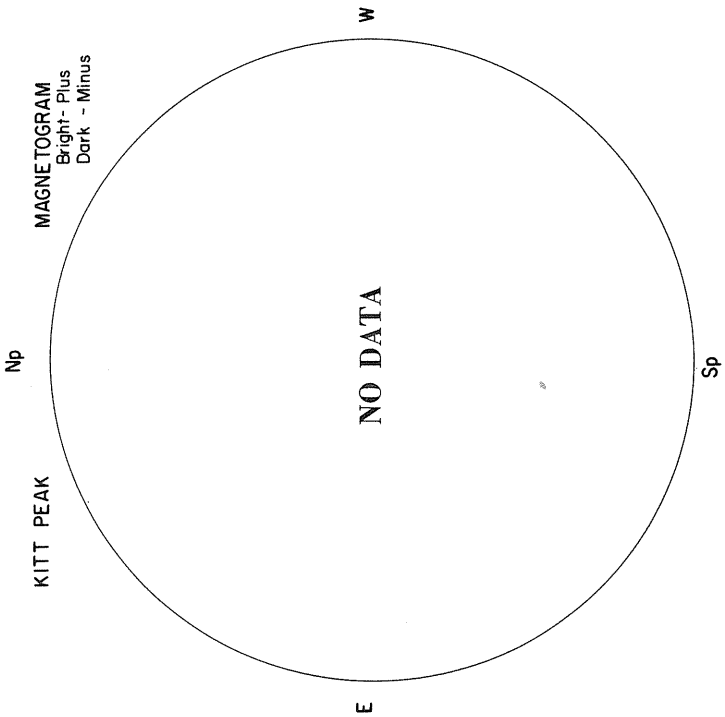
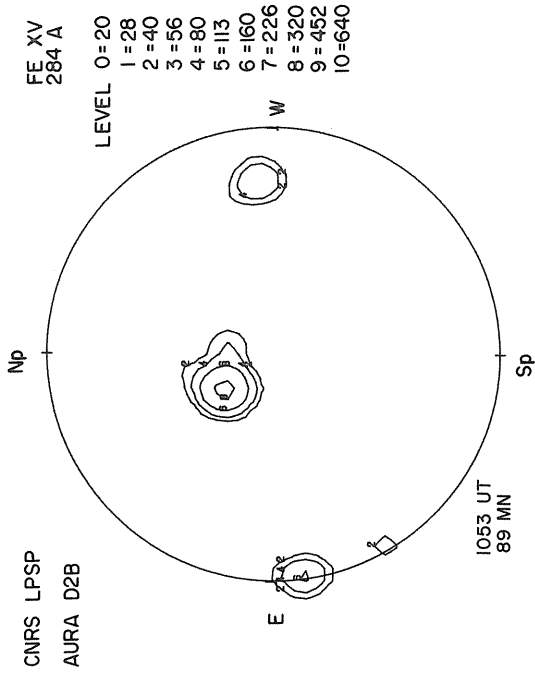
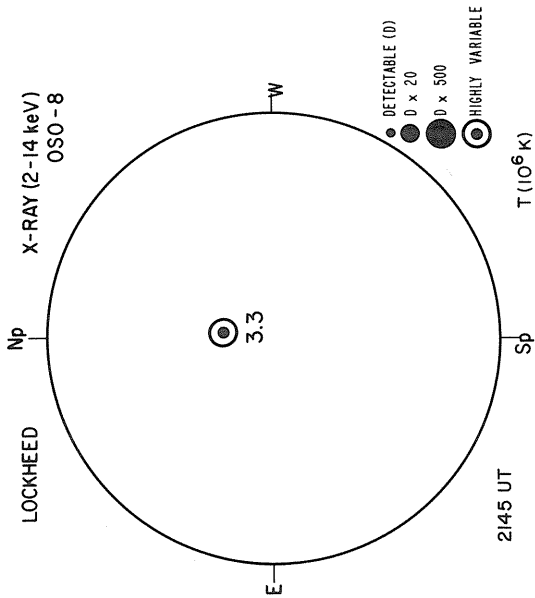
AUGUST 6, 1976 (P = 12.83, B₀ = 6.16, L₀ = 150.35)



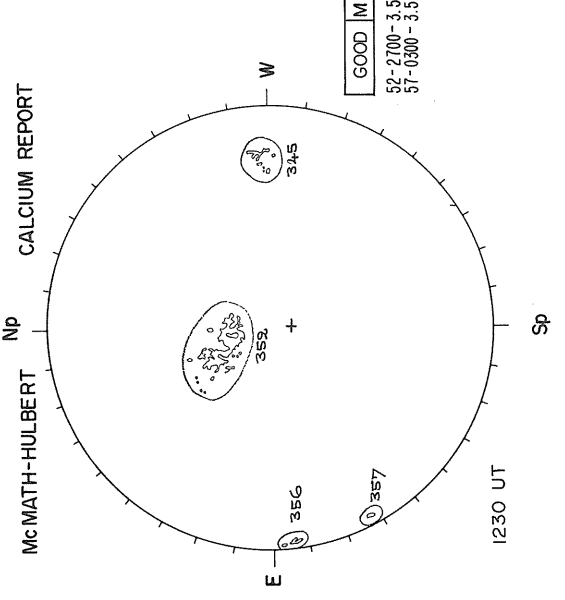
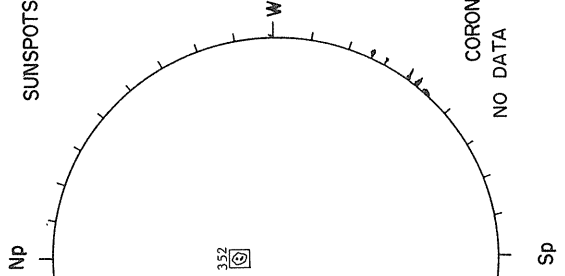
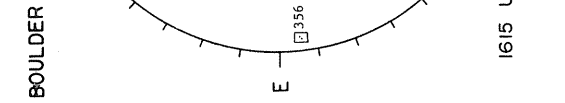
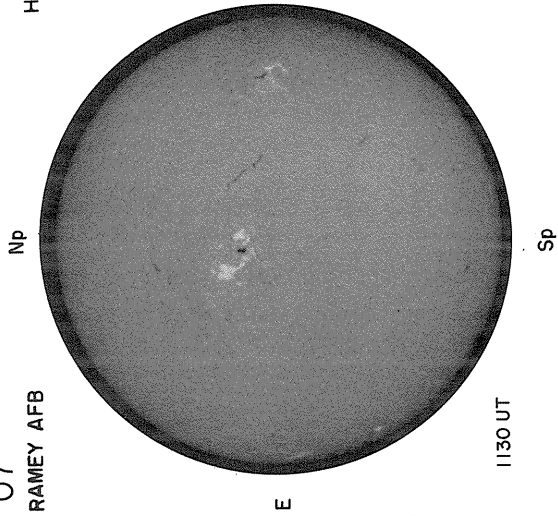
06
RAMEY AFB



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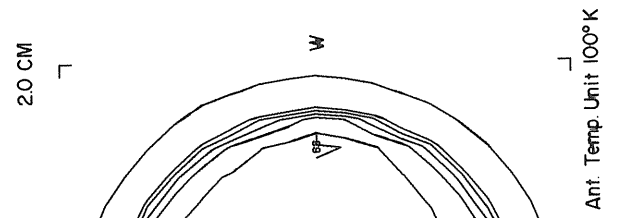
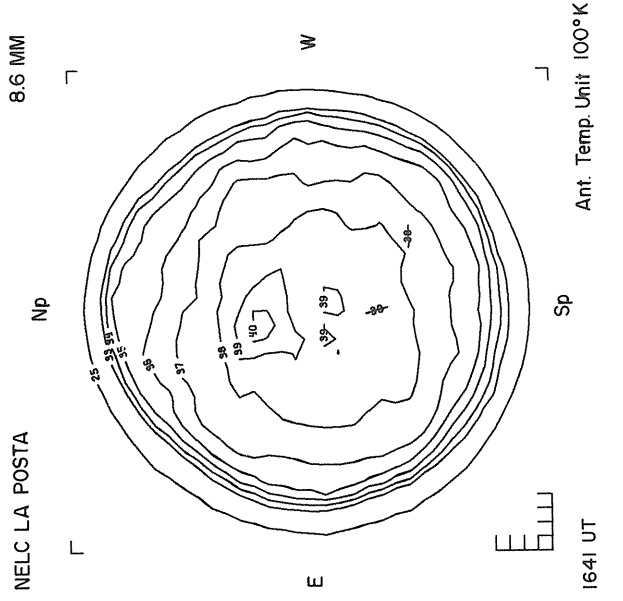
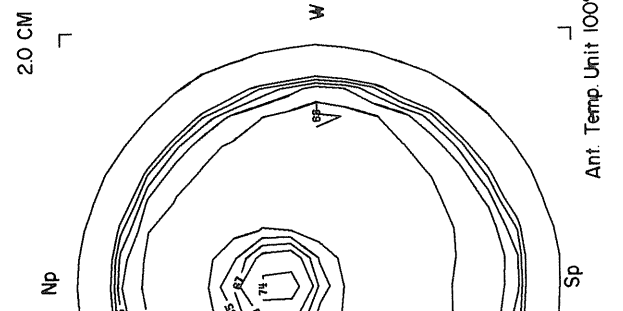
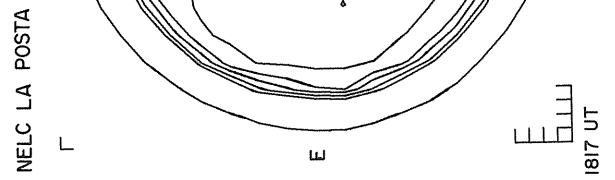


O7
RAMEY AFB



GOOD M
52-2700 - 3.5
57-0300 - 3.5

1130 UT

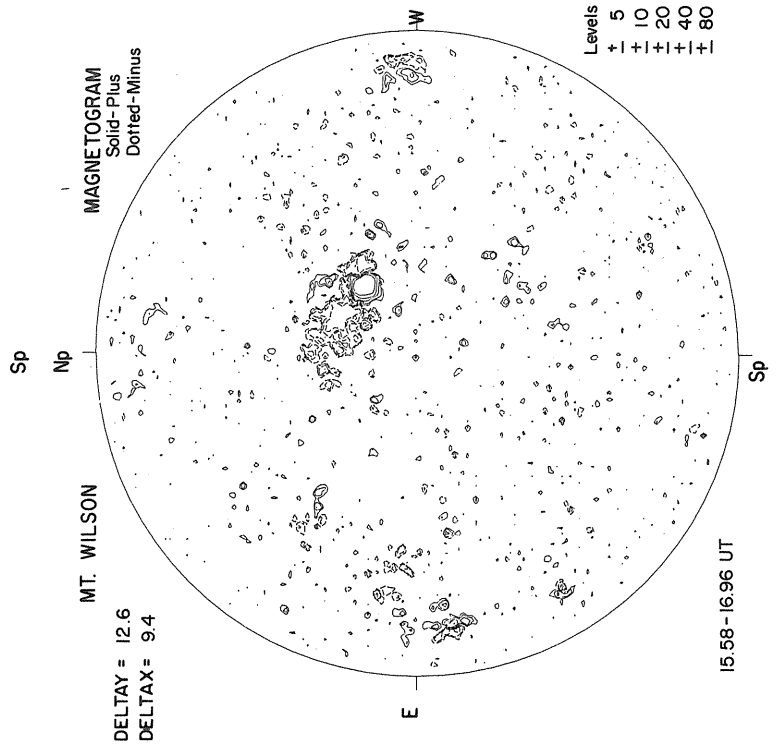
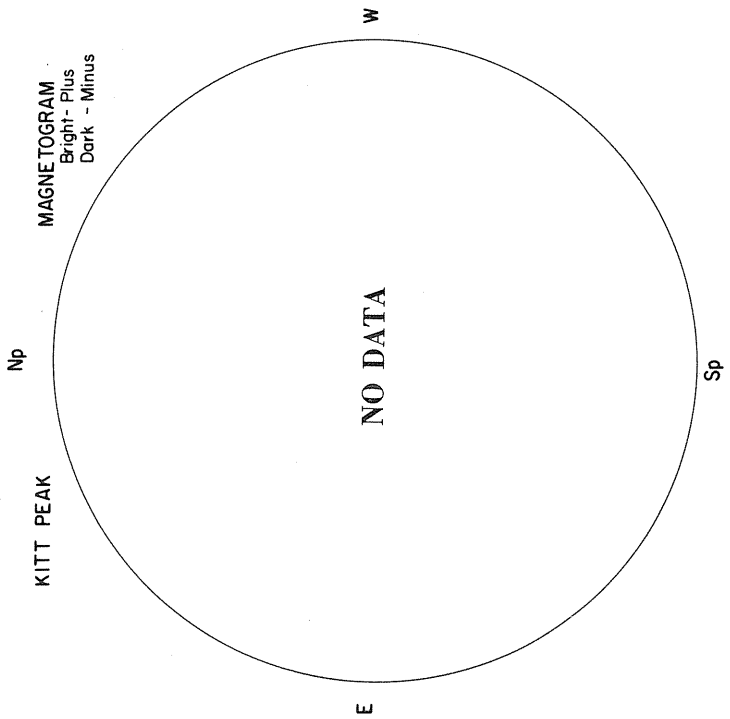
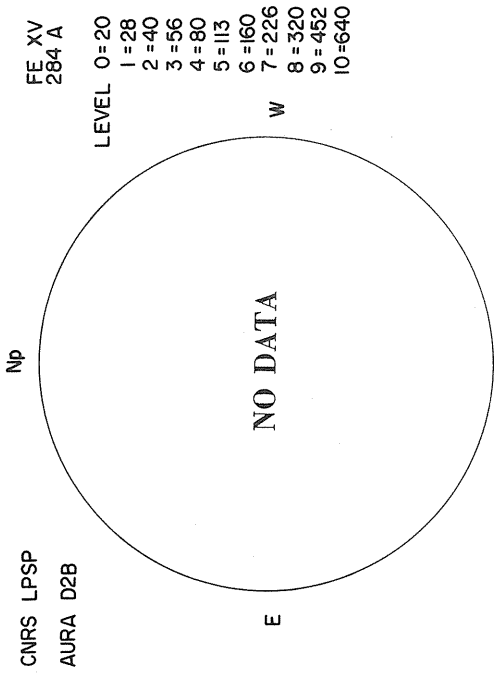
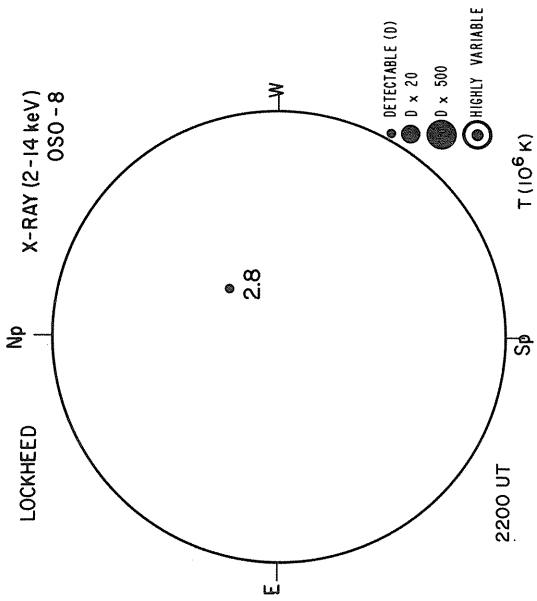


Ant. Temp. Unit 100°K

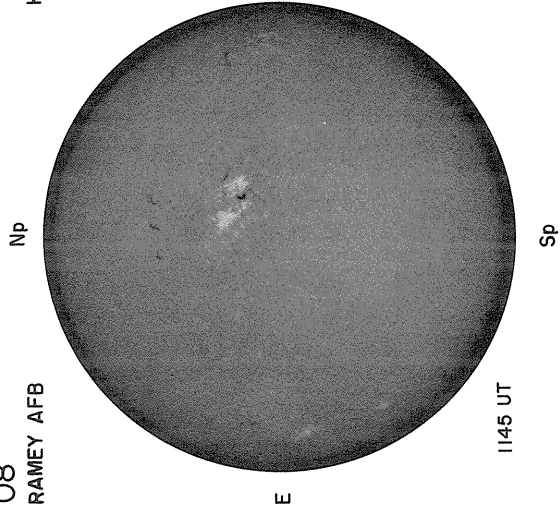
Ant. Temp. Unit 100°K

Ant. Temp. Unit 100°K

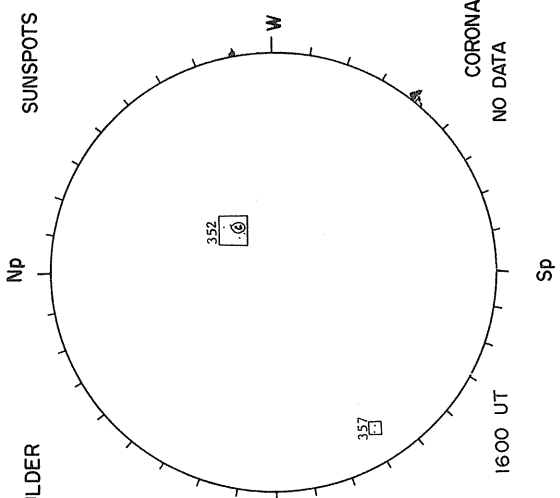
AUGUST 8, 1976 (P = 13.58, B₀ = 6.28, L₀ = 123.90)



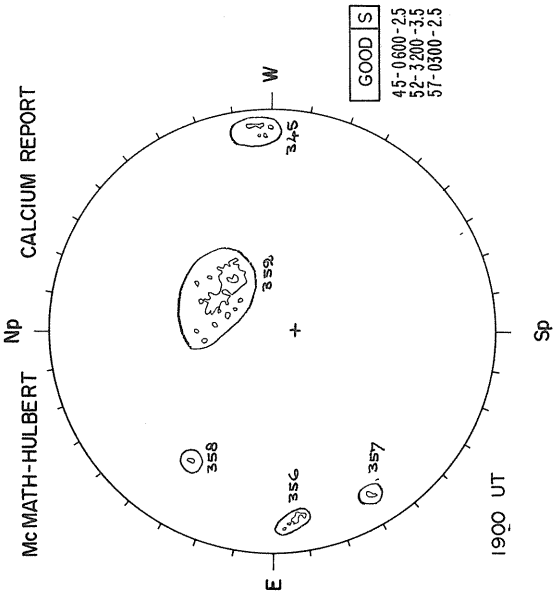
08
RAMEY AFB



H α BOULDER

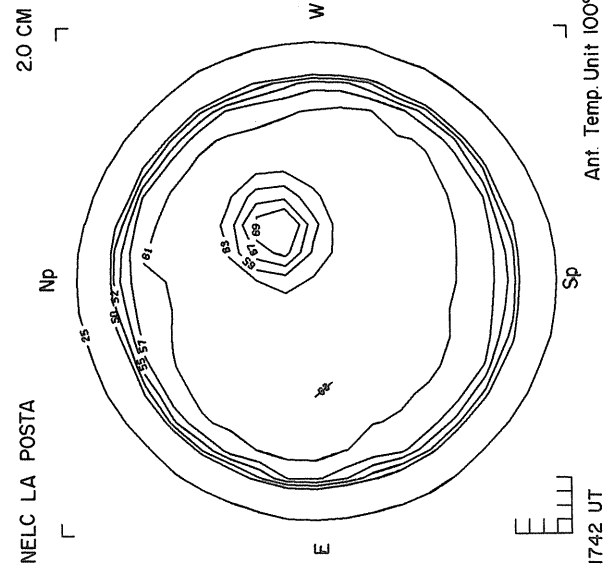


McMATH-HULBERT

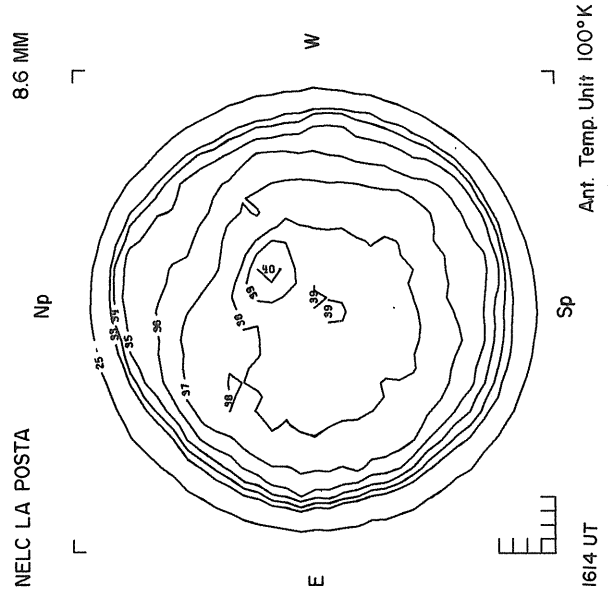


GOOD S
45-0600-25
52-3200-35
57-0300-25

NELC LA POSTA



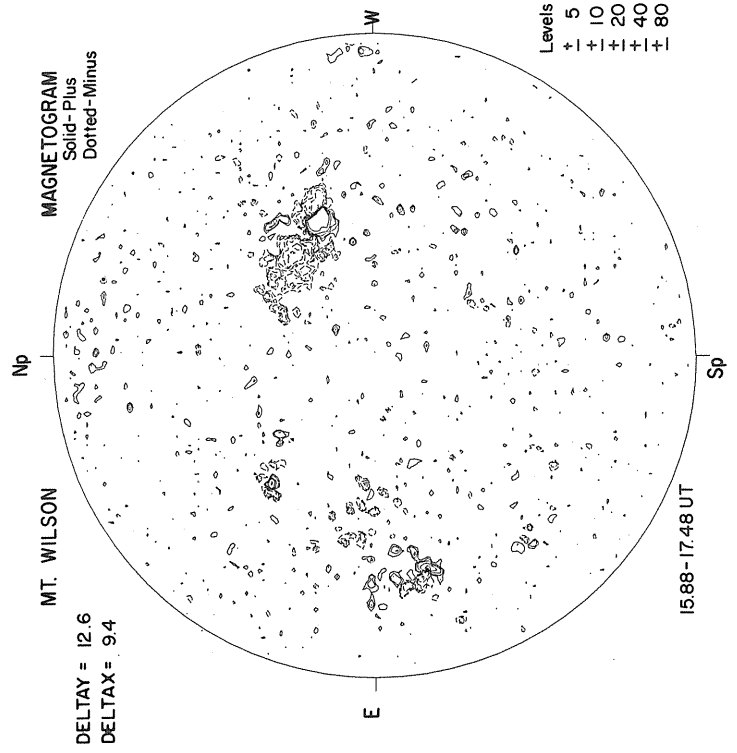
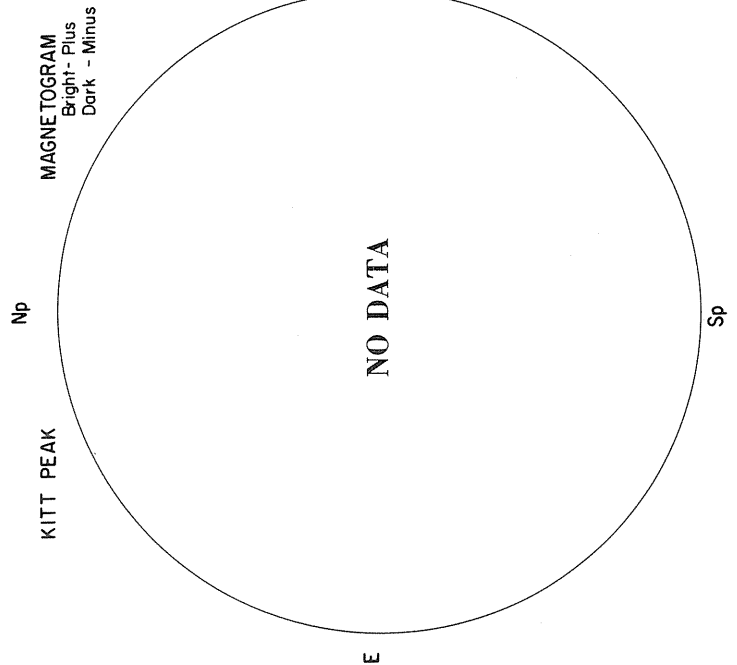
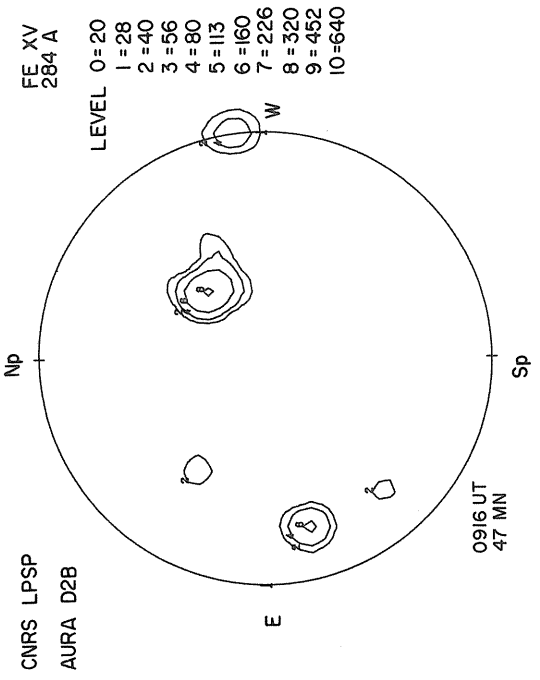
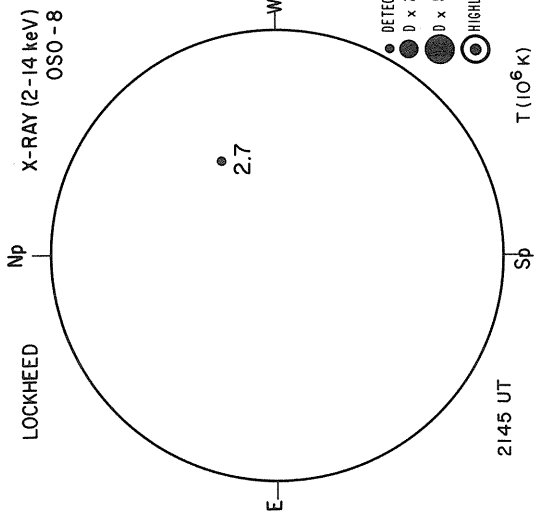
NELC LA POSTA



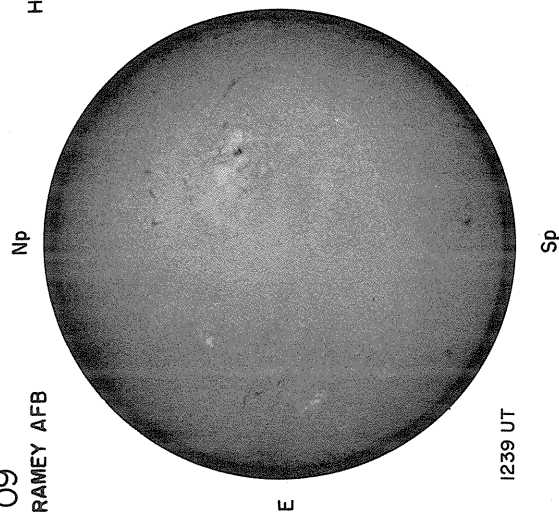
Ant. Temp. Unit 100°K

Ant. Temp. Unit 100°K

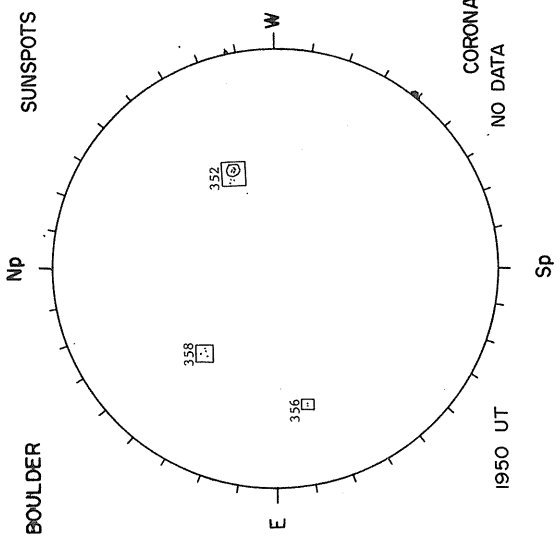
AUGUST 9, 1976 (P = 13.95, B₀ = 6.34, L₀ = 10.68)



09
RAMEY AFB

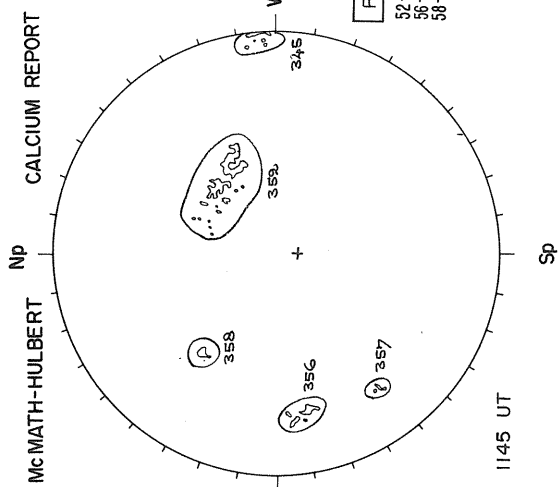


H α BOULDER



SUNSPOTS

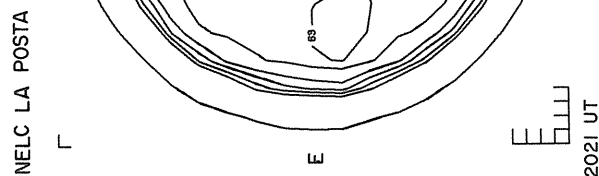
CORONA
NO DATA



McMATH-HULBERT

CALCIUM REPORT

FAIR	D
52-3500-35	
56-0900-25	
58-0900-25	
58-0400-25	

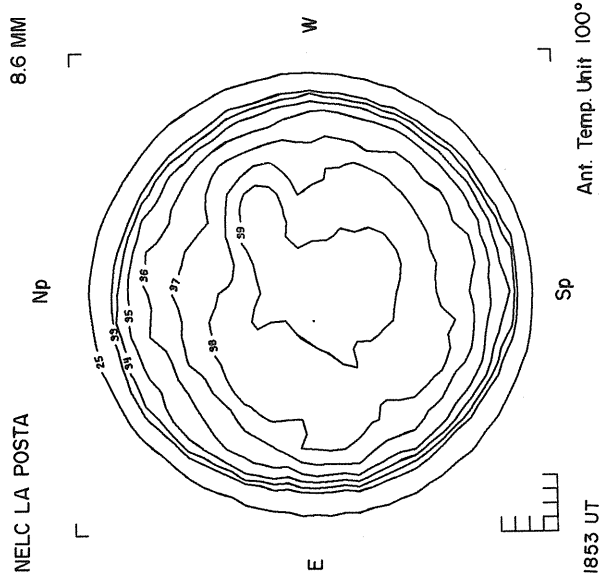


NELC LA POSTA

2.0 CM

Ant. Temp. Unit 100°K

2021 UT



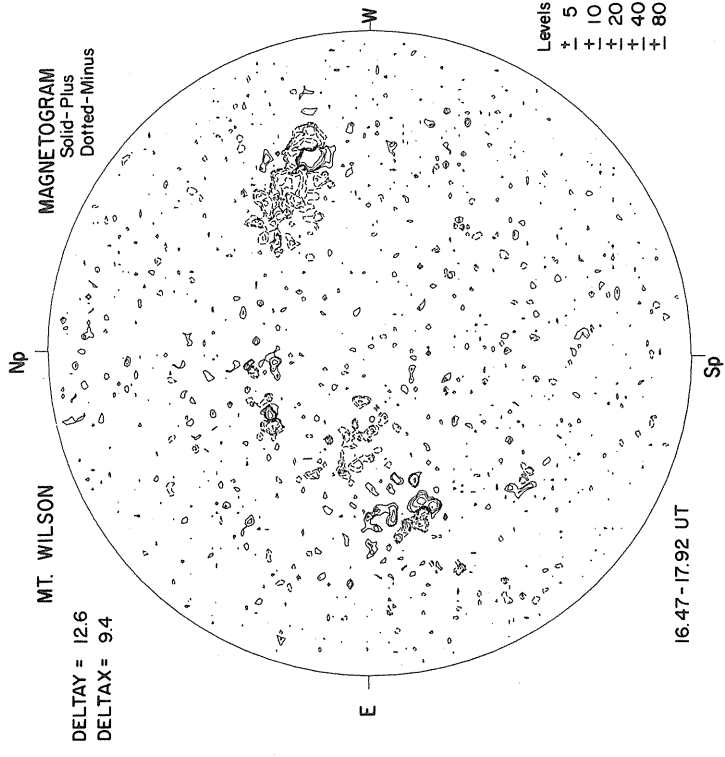
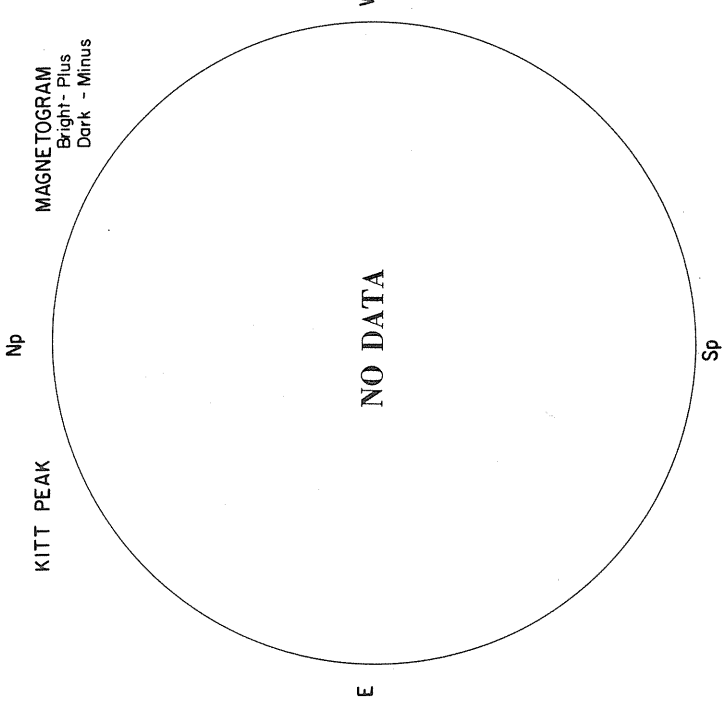
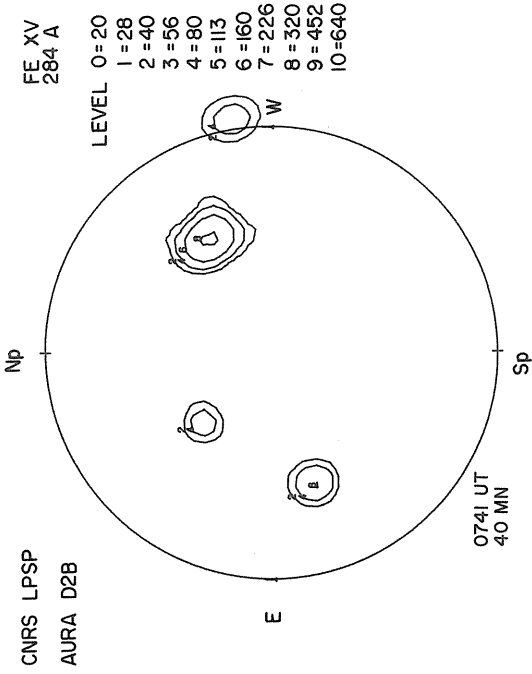
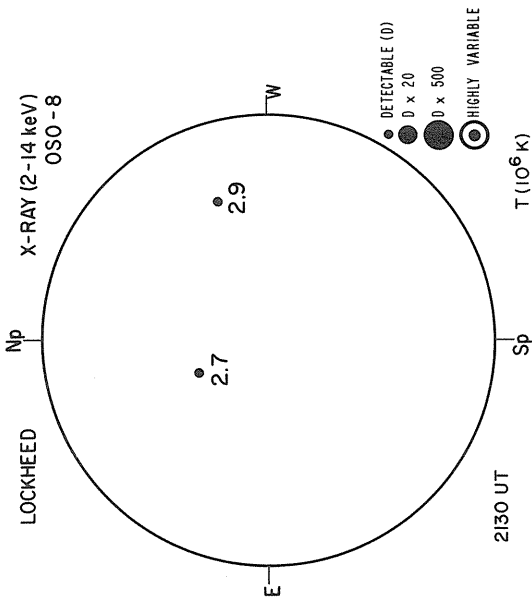
NELC LA POSTA

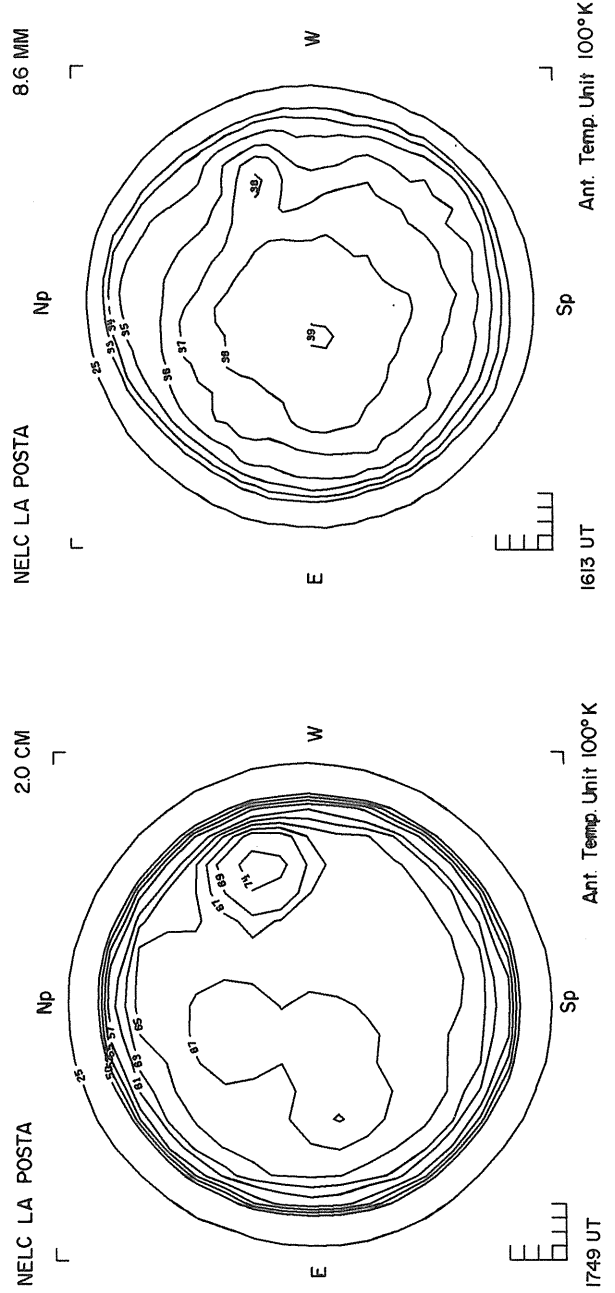
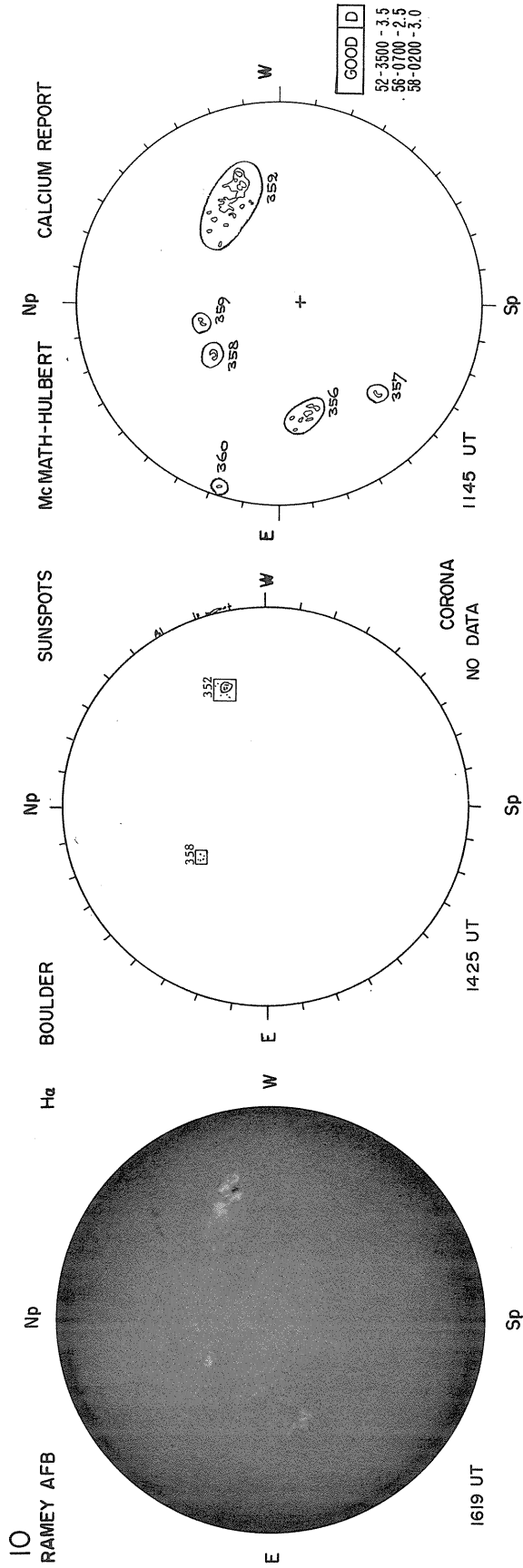
8.6 MM

Ant. Temp. Unit 100°K

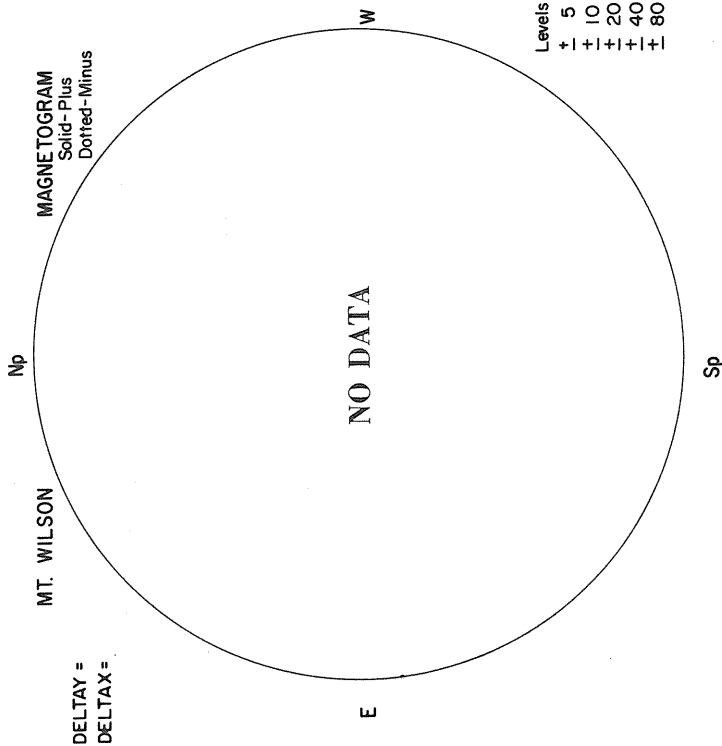
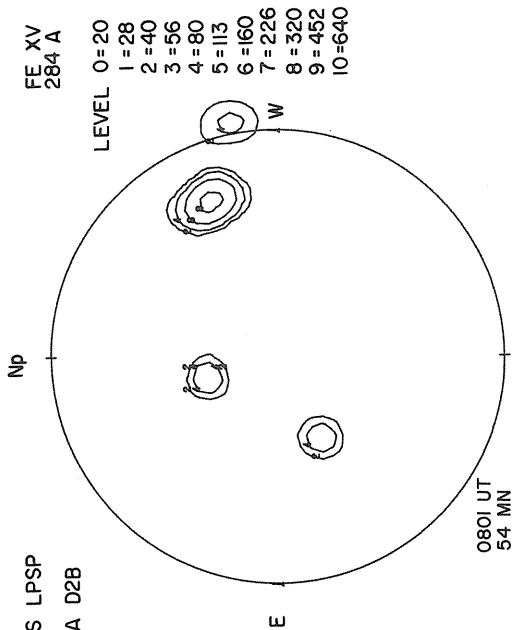
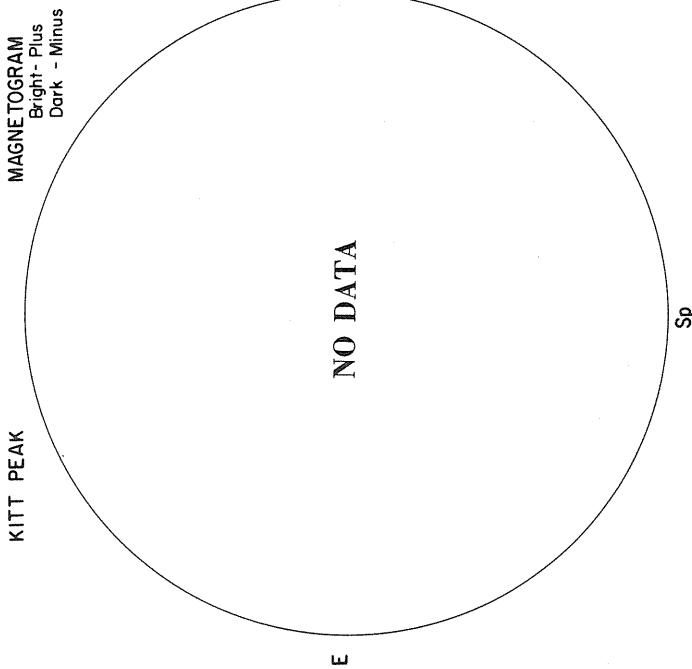
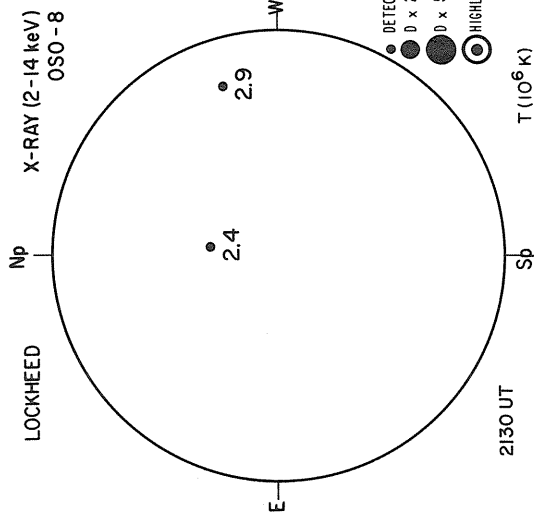
1853 UT

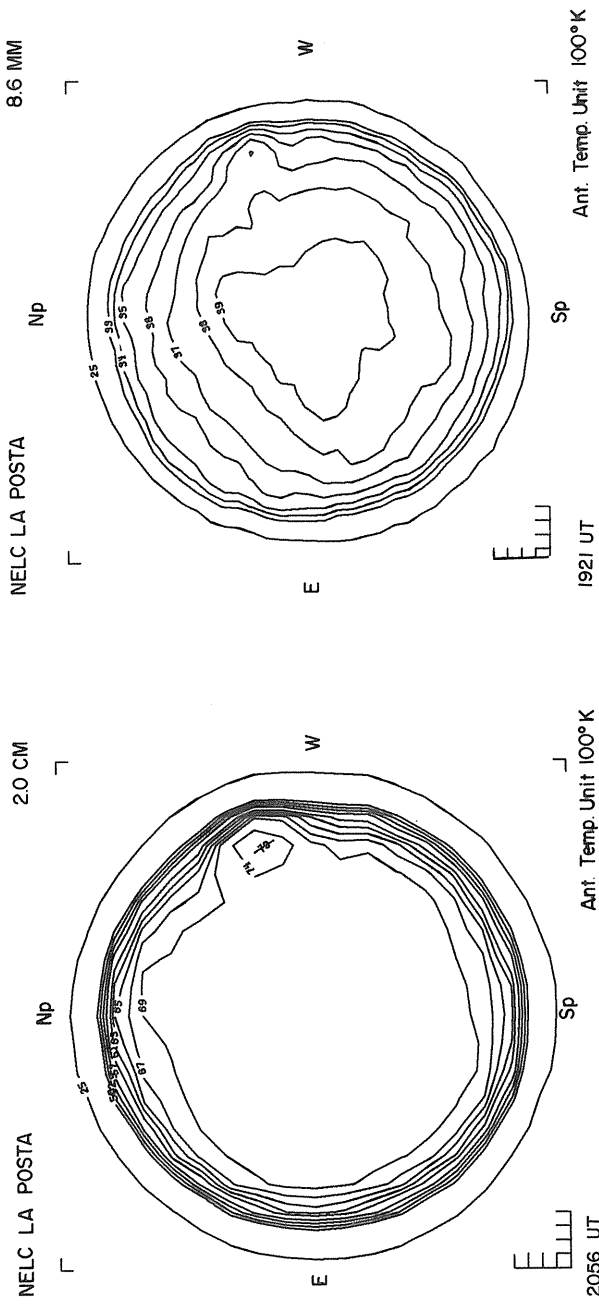
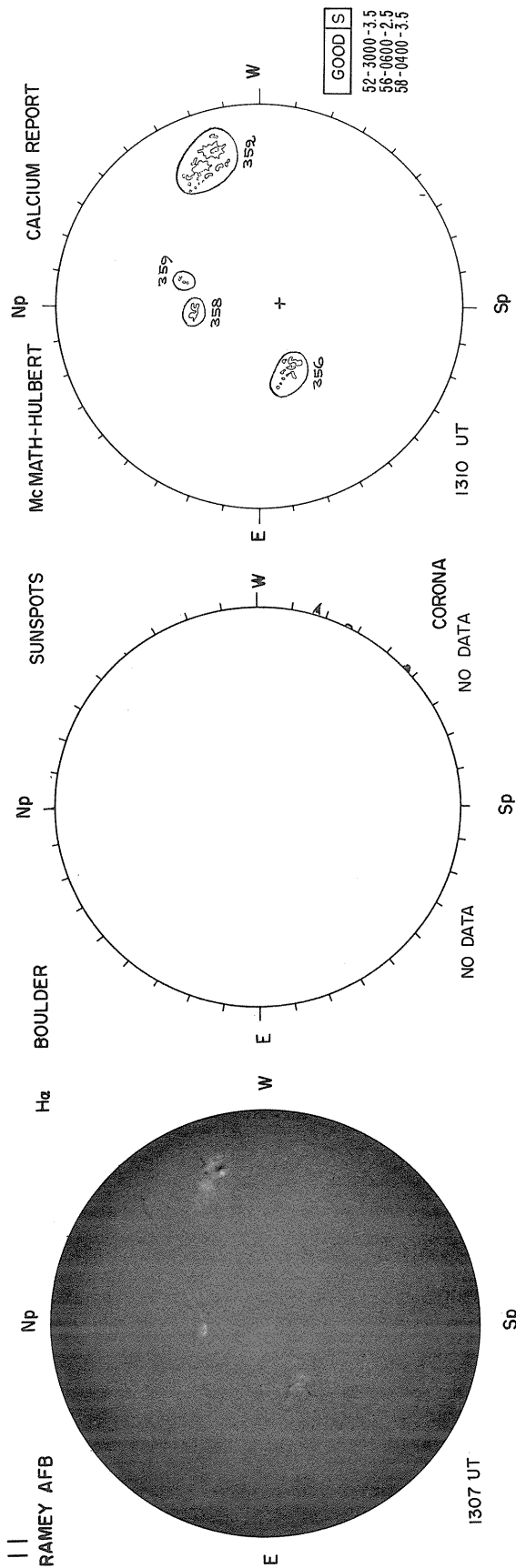
AUGUST 10, 1976 (P = 14.3I, B₀ = 6.40, L₀ = 97.46)



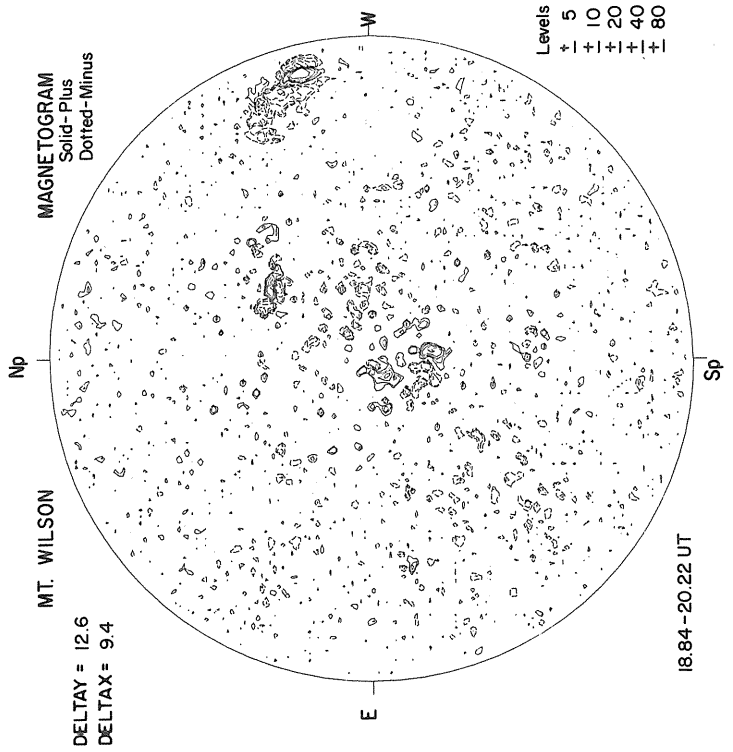
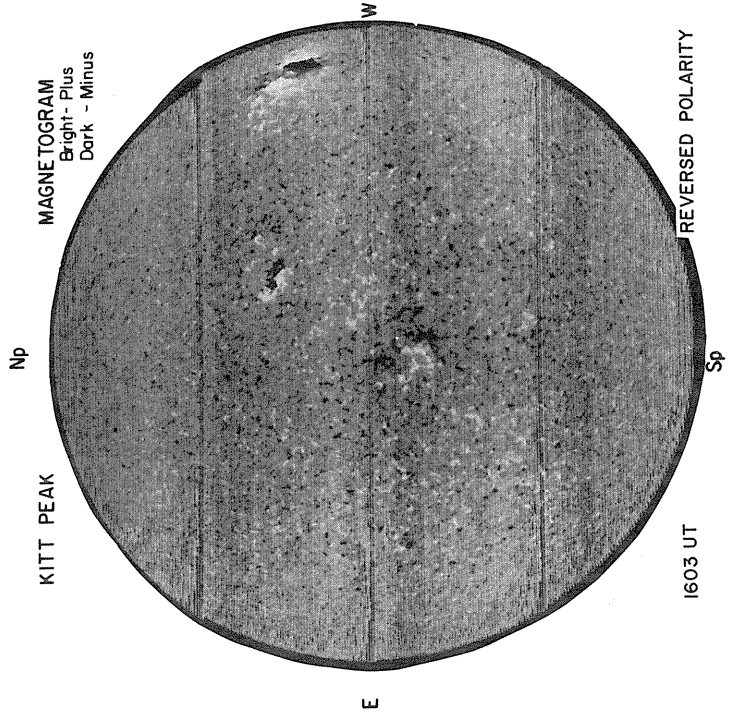
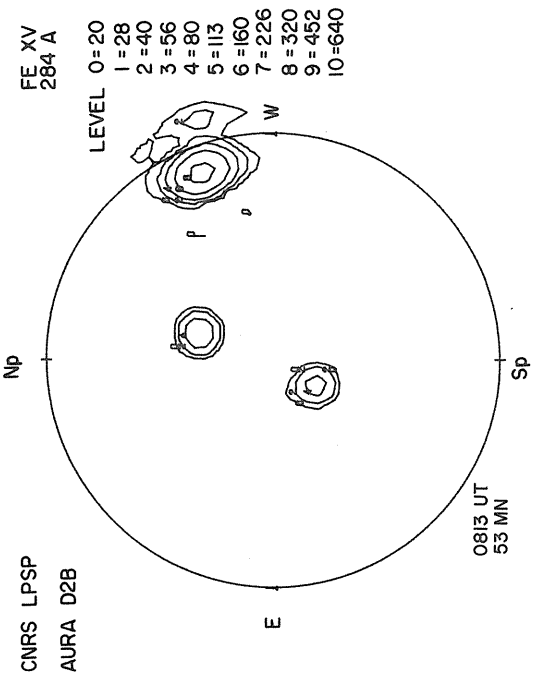
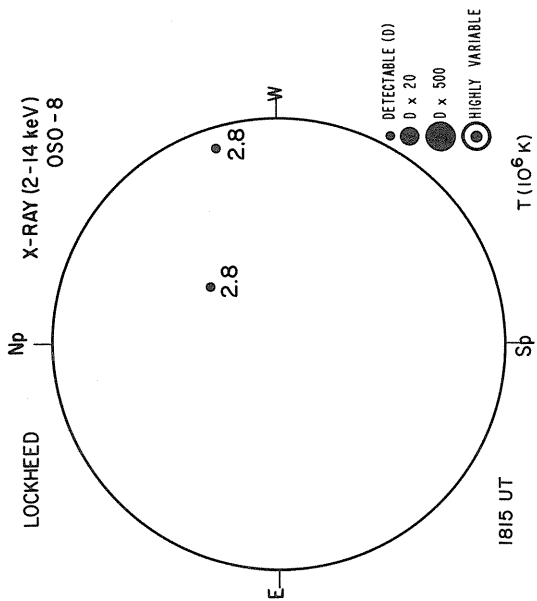


AUGUST 11, 1976 (P = 14.67, $B_0 = 6.46$, $L_0 = 84.24$)

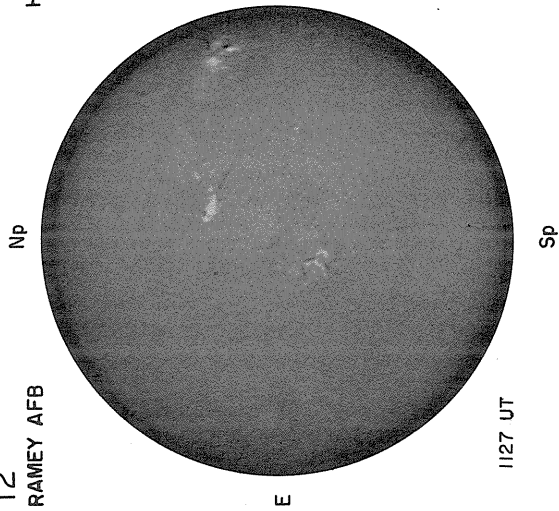




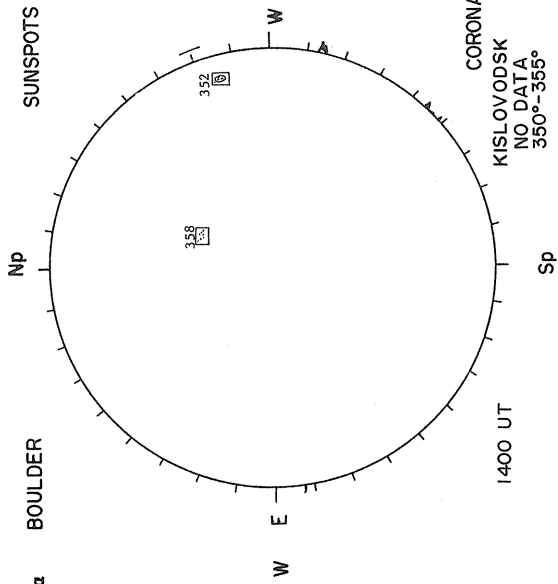
AUGUST 12, 1976 (P = 15.03, $B_0 = 6.5I$, $L_0 = 71.02$)



12
RAMEY AFB

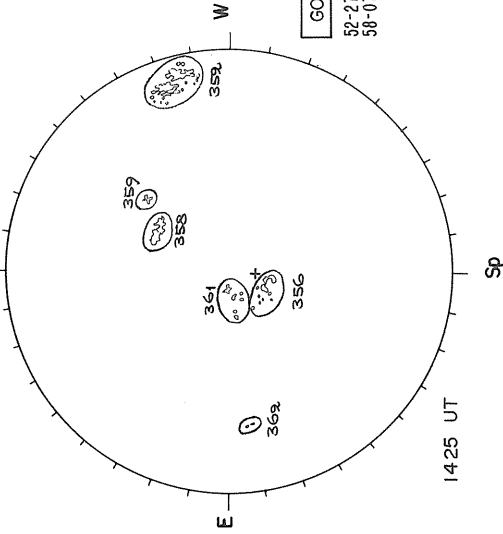


H α BOULDER



SUNSPOTS

NP CALCIUM REPORT

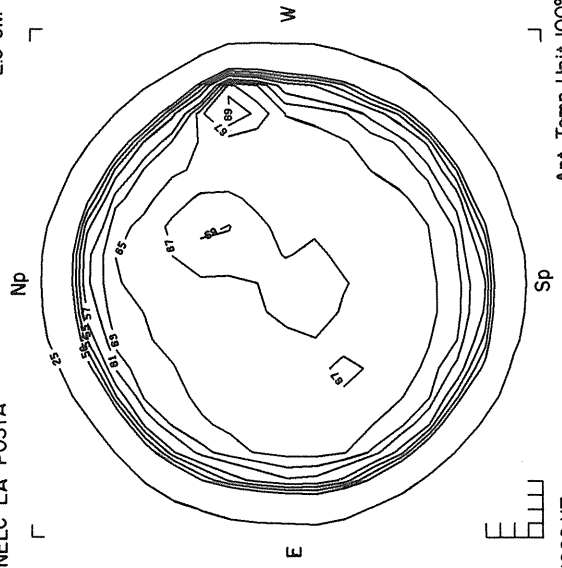


GOOD	D
52-2700-3.5	
38-0700-3.3	

CORONA
KISLOVODSK
NO DATA
350°-355°

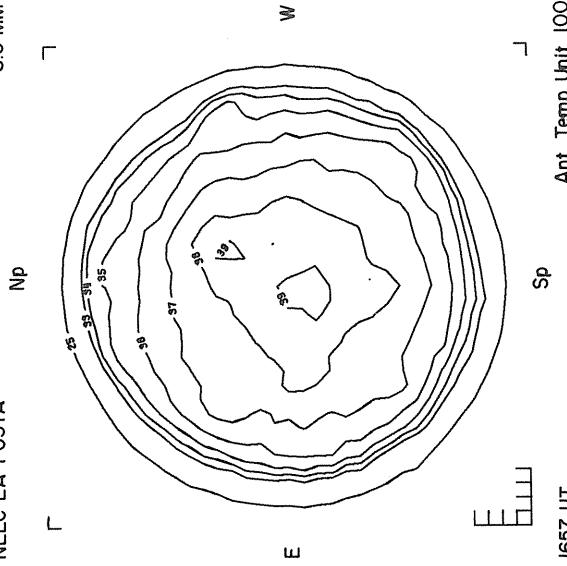
NELC LA POSTA

2.0 CM



NELC LA POSTA

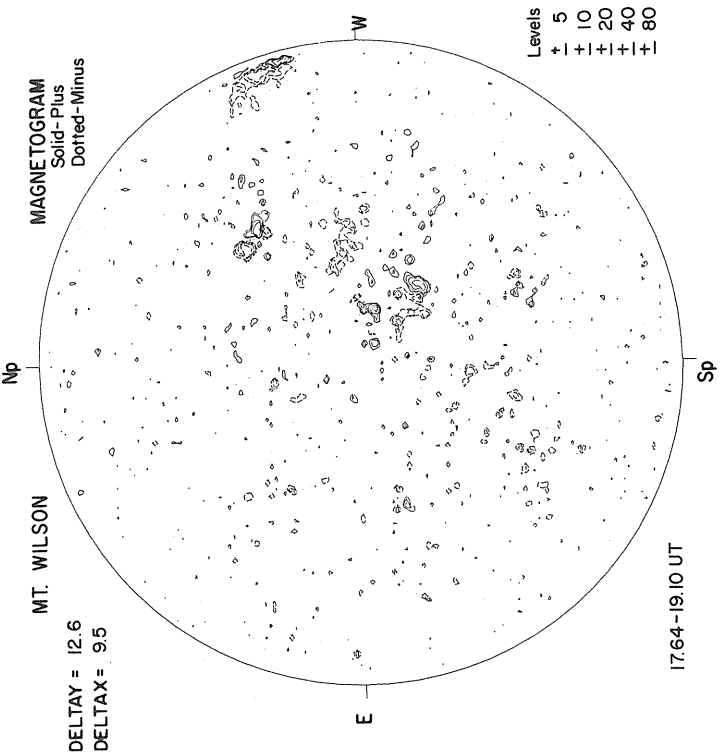
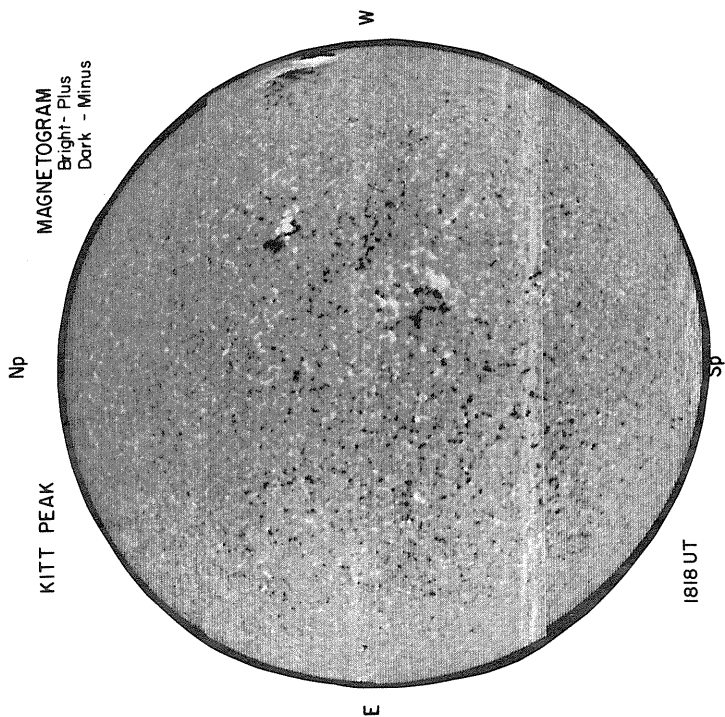
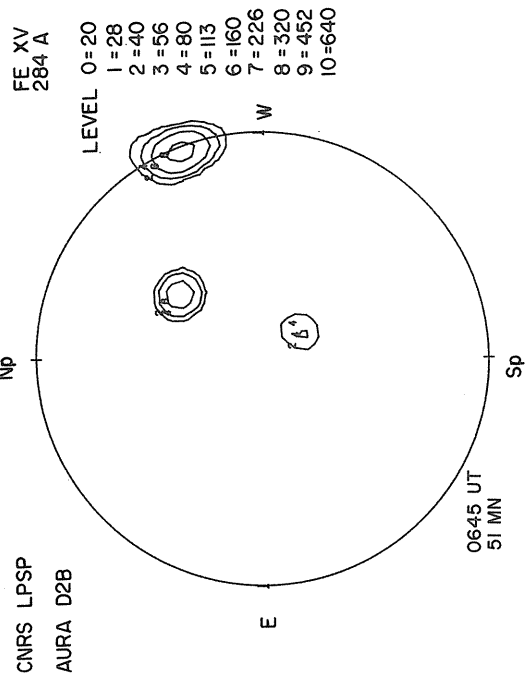
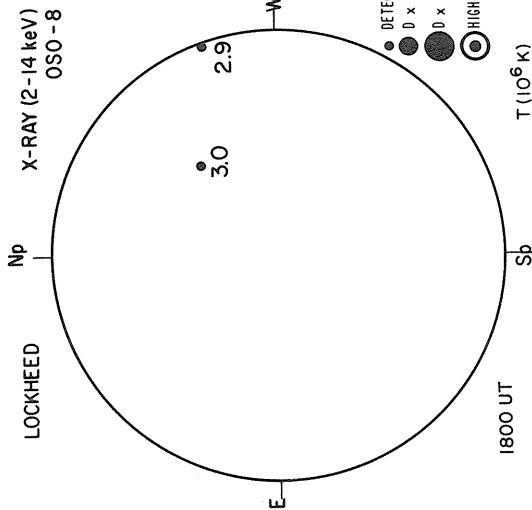
8.6 MM



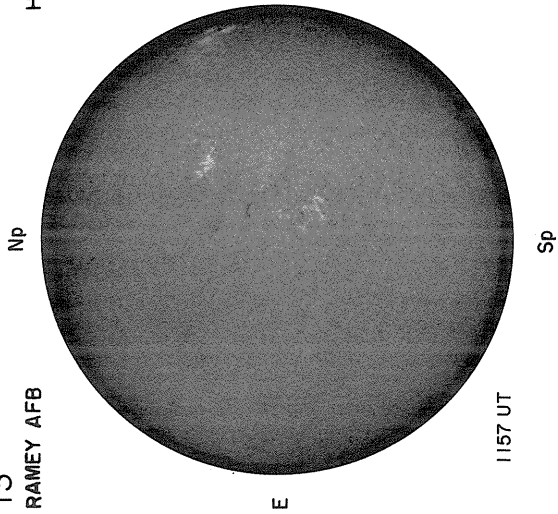
Ant. Temp Unit 100°K

Ant. Temp Unit 100°K

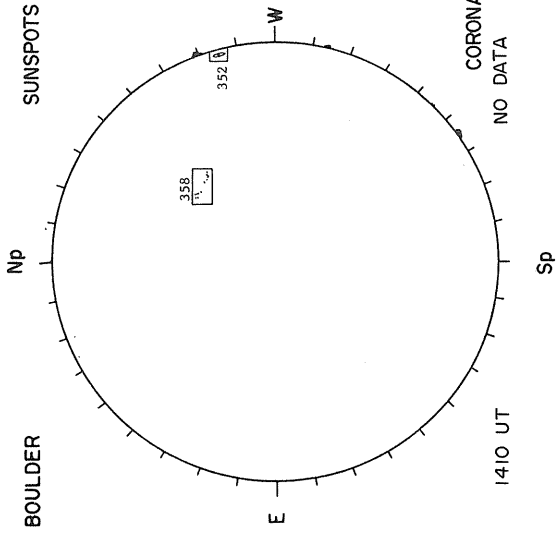
AUGUST 13, 1976 (P = 15.38, B₀ = 6.56, L₀ = 57.80)



13
RAMEY AFB



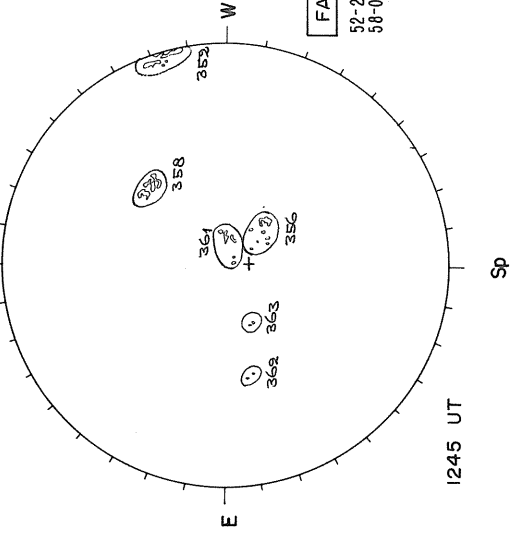
H α BOULDER



SUNSPOTS

CORONA
NO DATA

McMATH-HULBERT
NP
CALCIUM REPORT



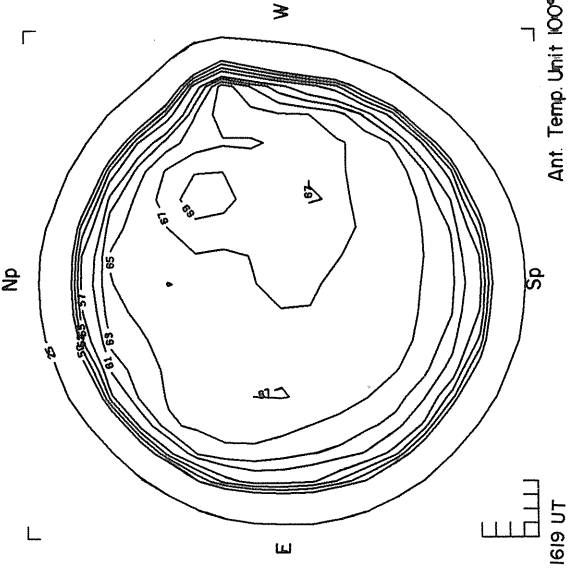
FAIR D
52-2700-3.5
58-0700-3.5

NELC LA POSTA

2.0 CM

NELC LA POSTA

8.6 MM



Ant. Temp. Unit 100°K

1713 UT

Sp

Ant. Temp. Unit 100°K

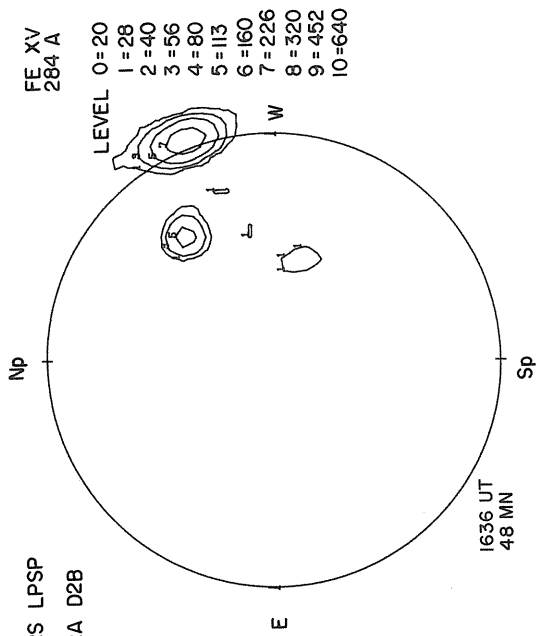


1713 UT

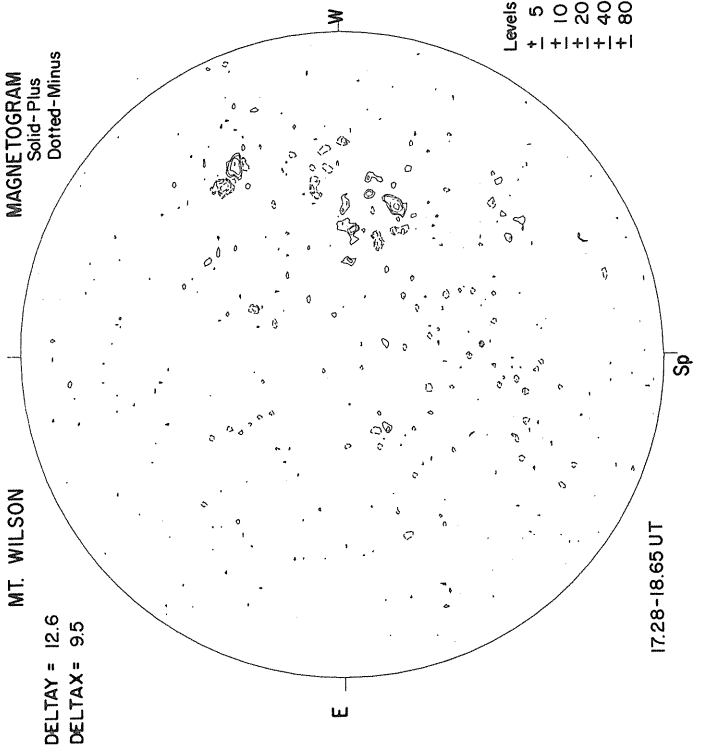
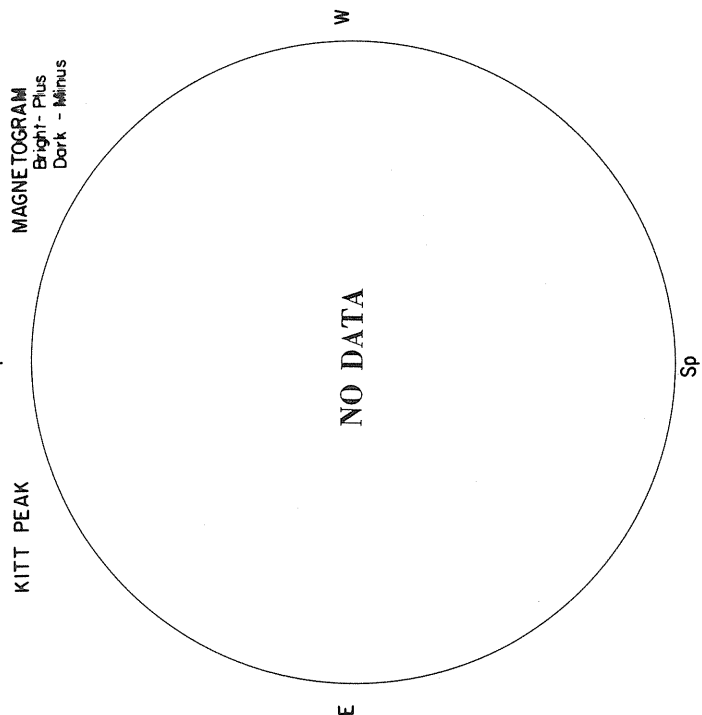
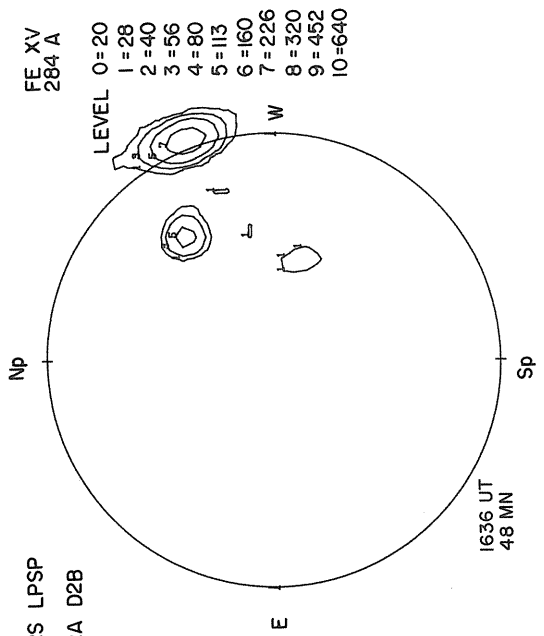
Sp

Ant. Temp. Unit 100°K

AUGUST 14, 1976 (P = 15.73, B₀ = 6.6l, L₀ = 44.58)

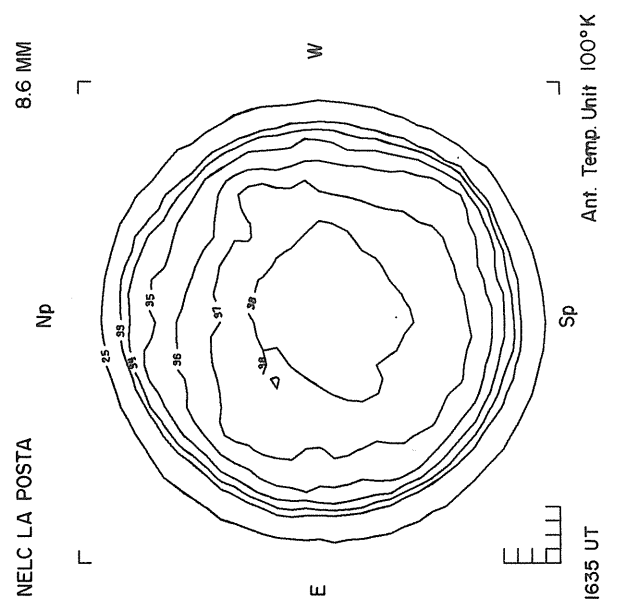
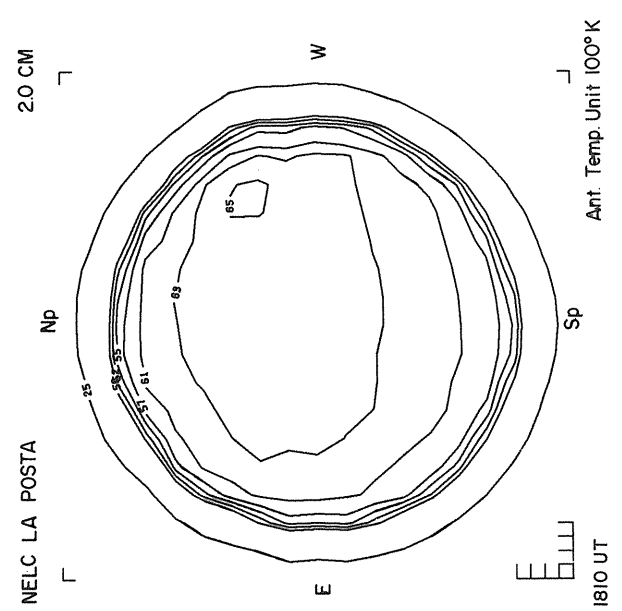
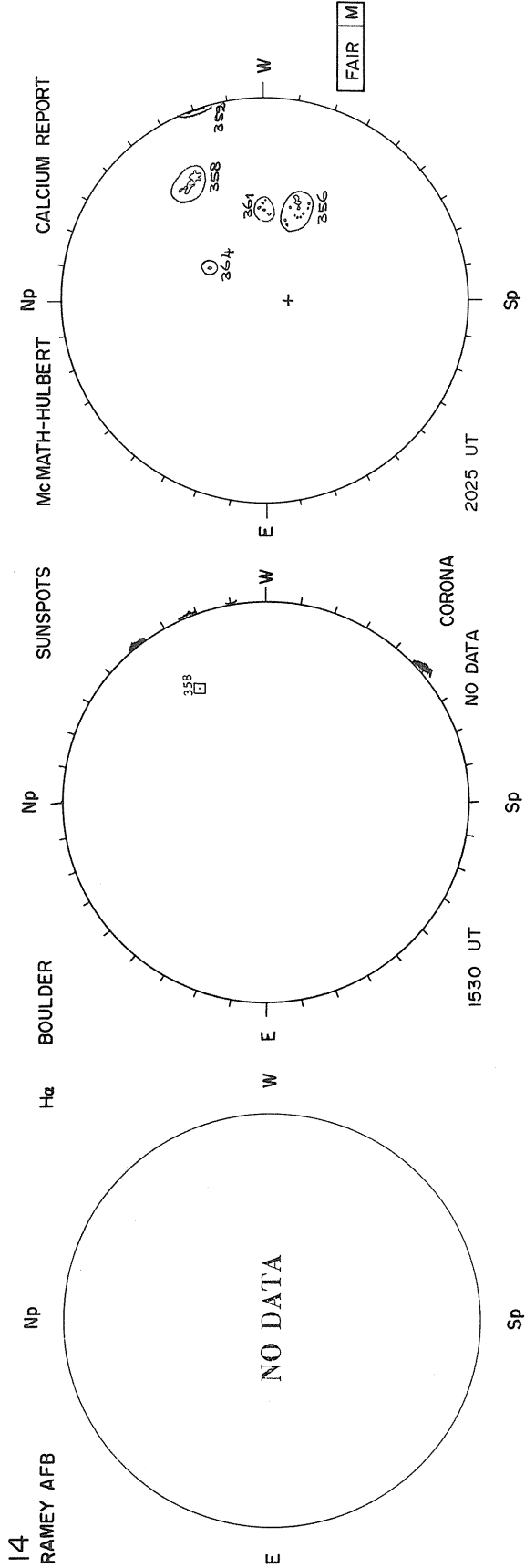


CNRS LPSP
AURA D2B

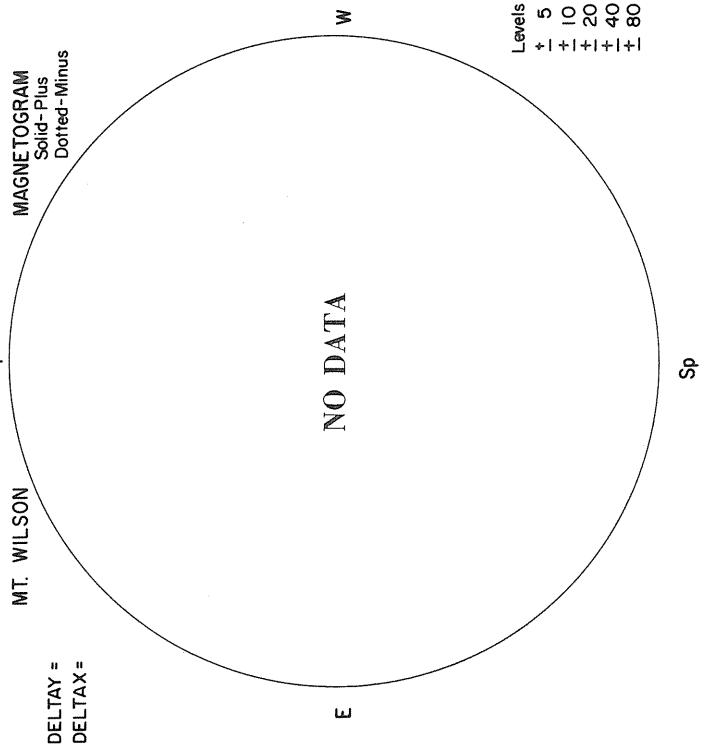
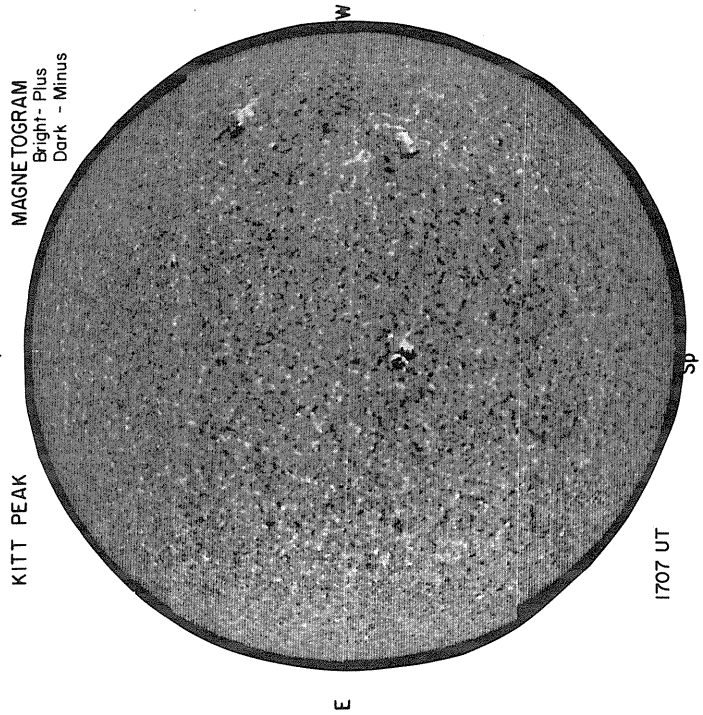
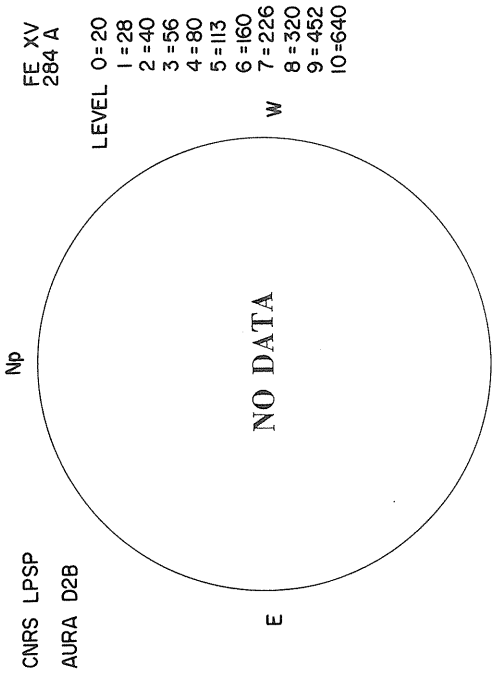
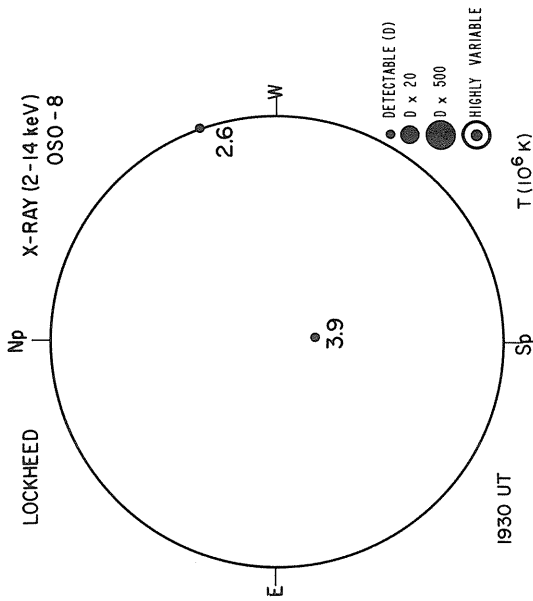


MAGNETOGRAM
Solid-Plus
Dotted-Minus

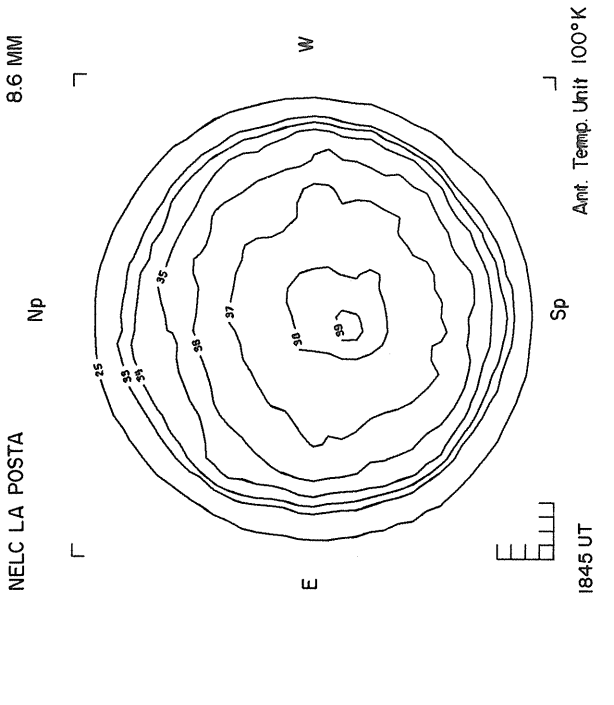
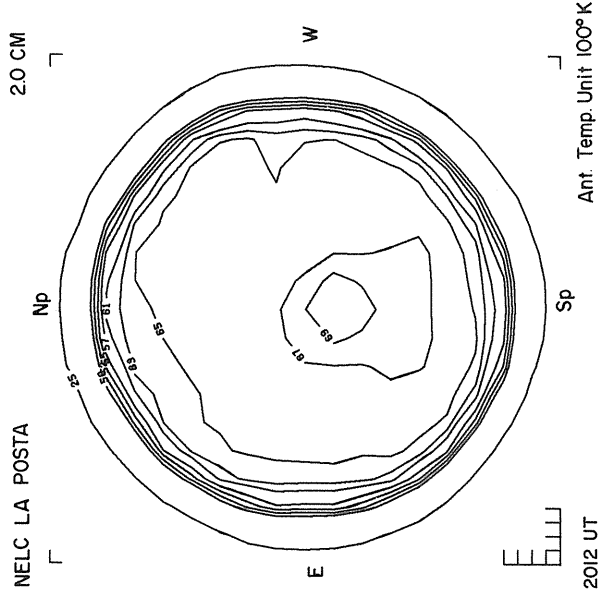
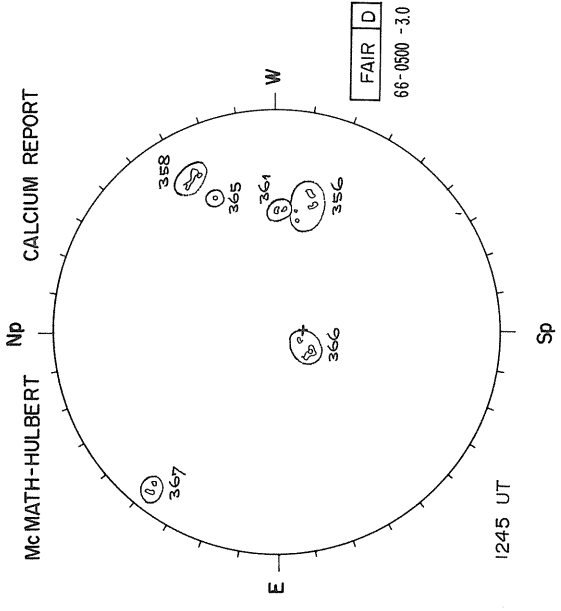
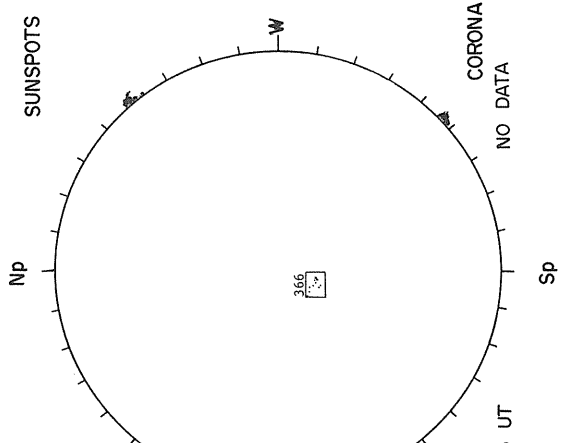
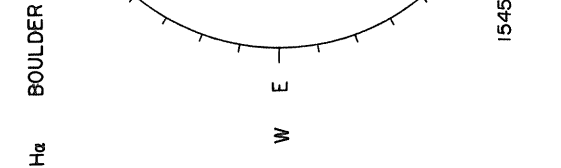
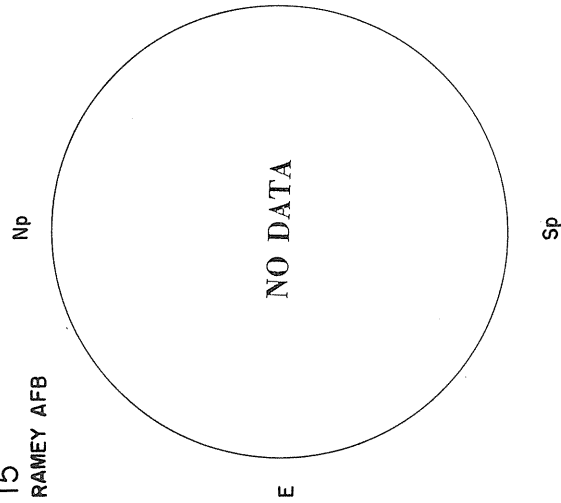
Levels
+ 5
+ 10
+ 20
+ 40
+ 80



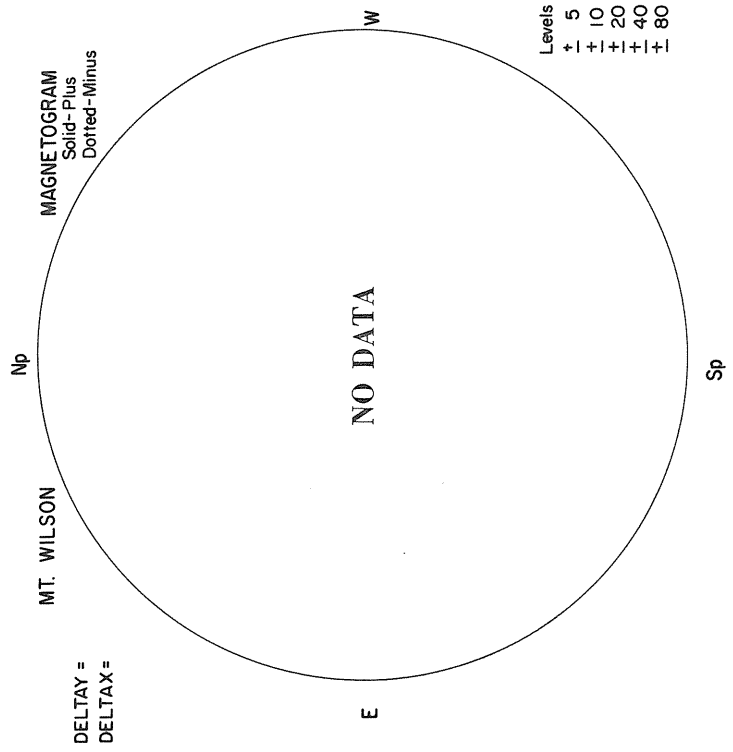
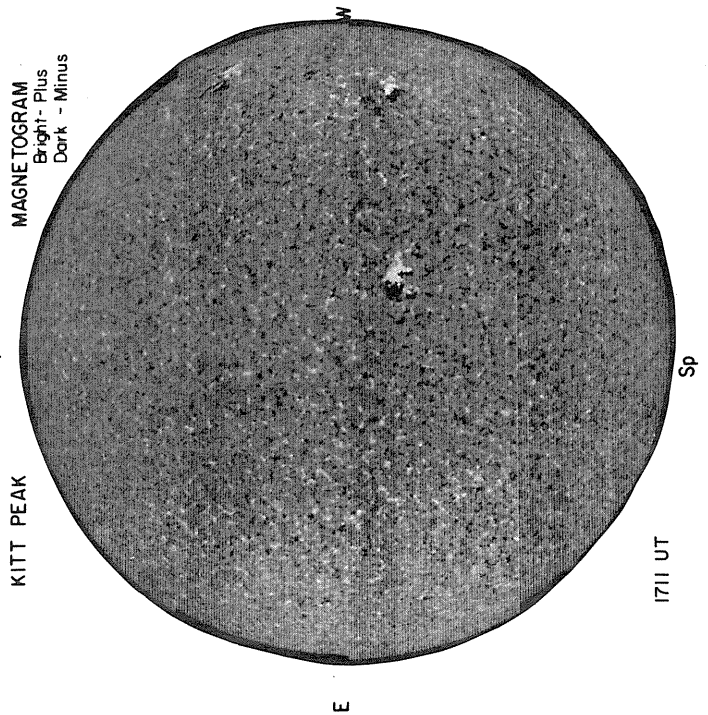
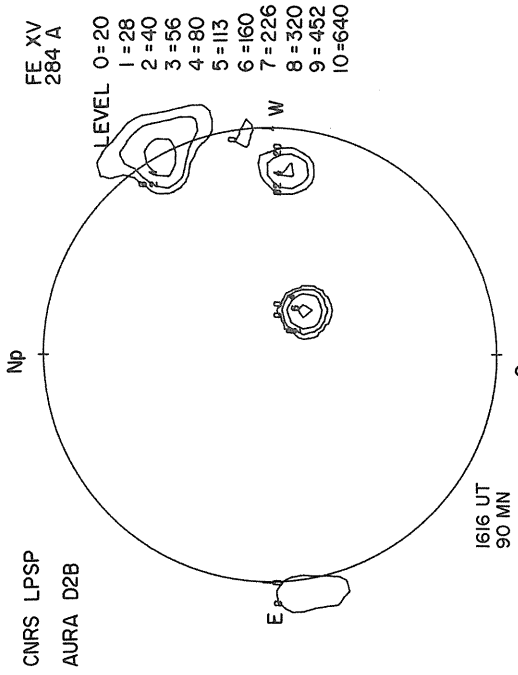
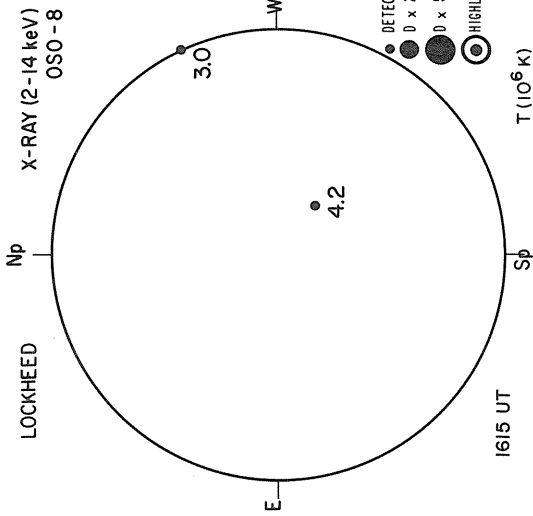
AUGUST 15, 1976 (P=1607, $B_0 = 6.66$, $L_0 = 31.36$)

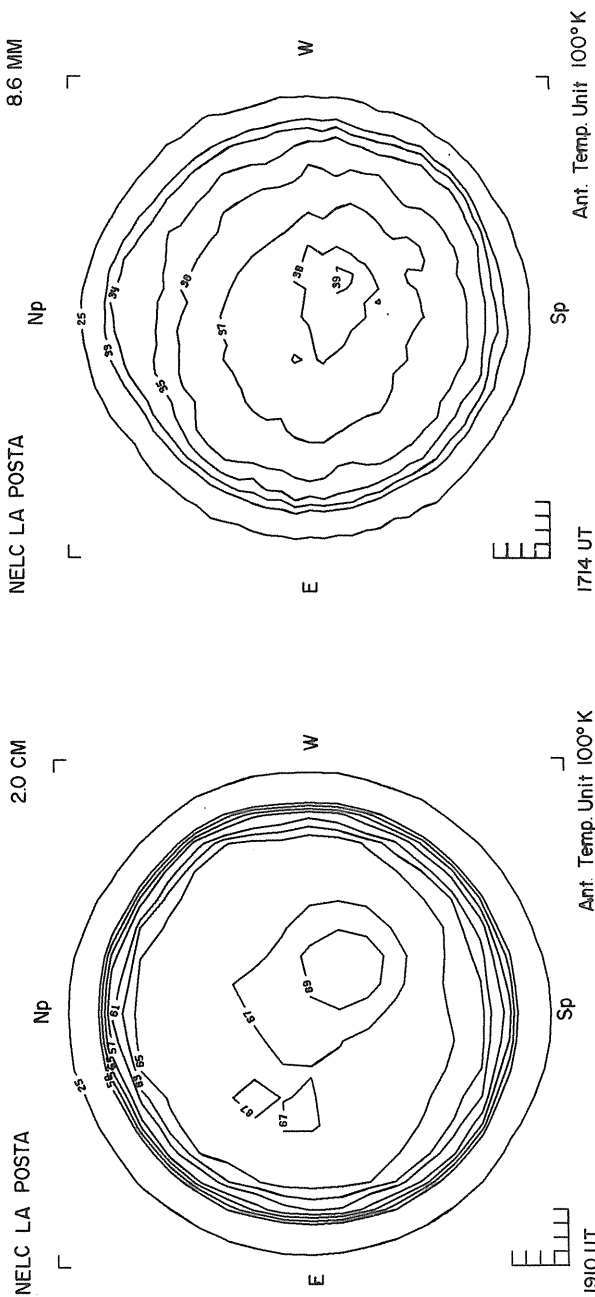
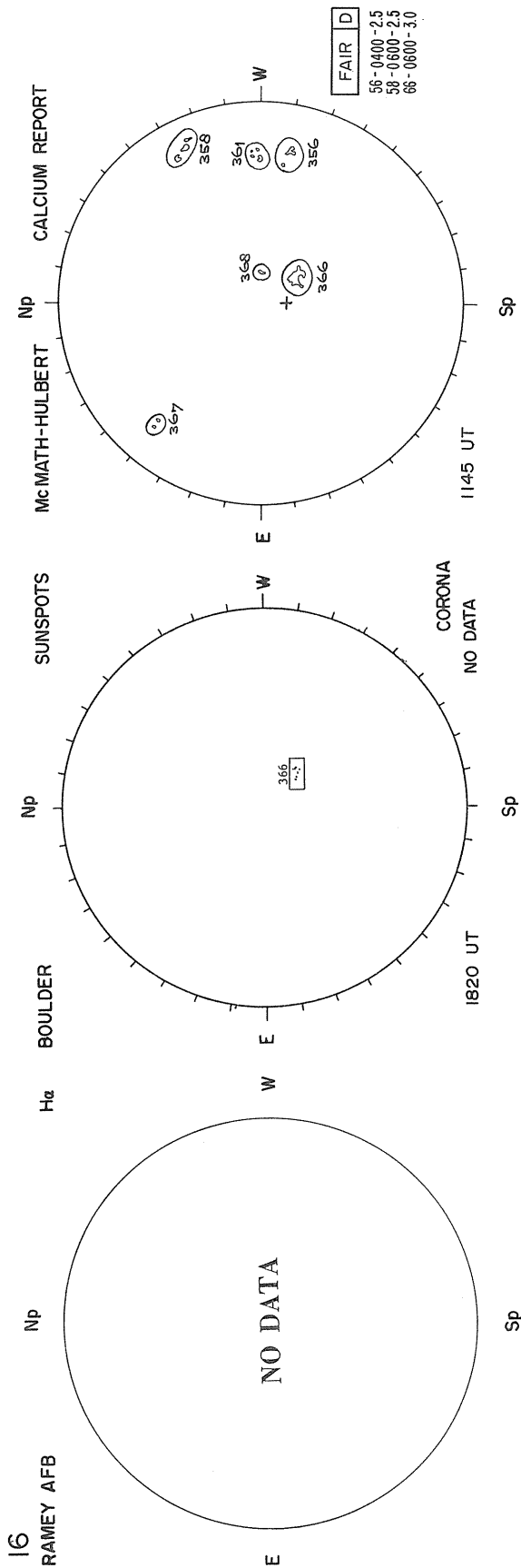


15
RAMEY AFB

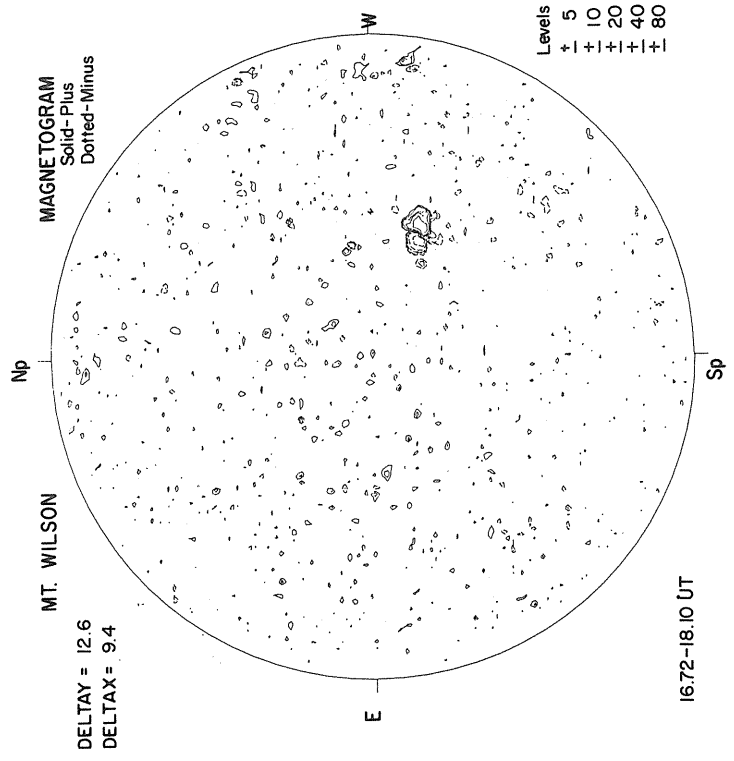
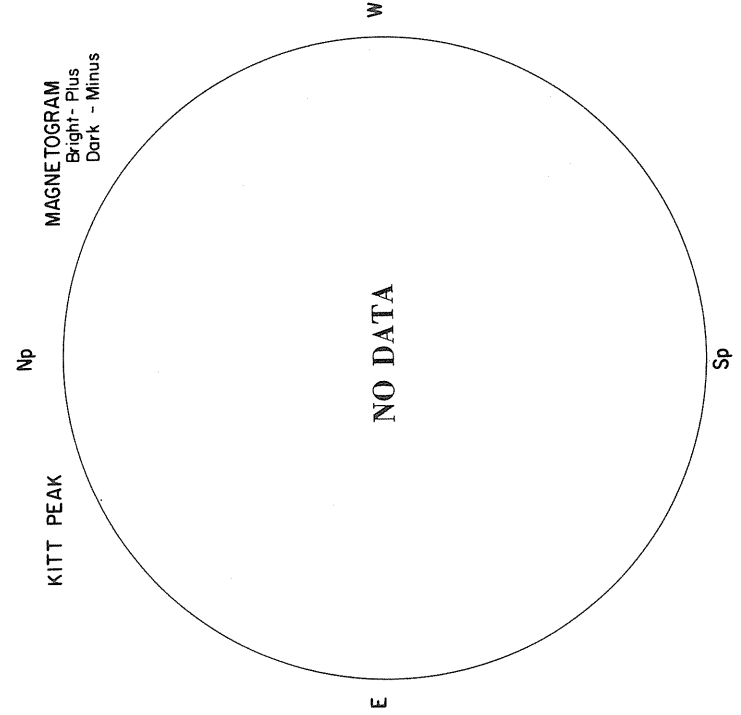
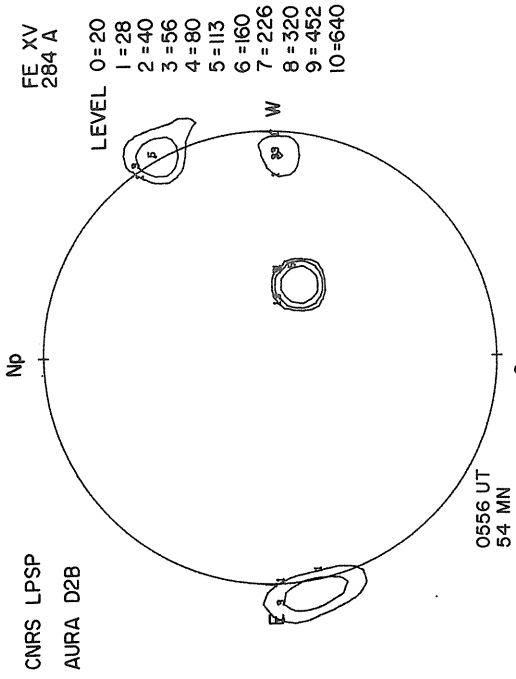
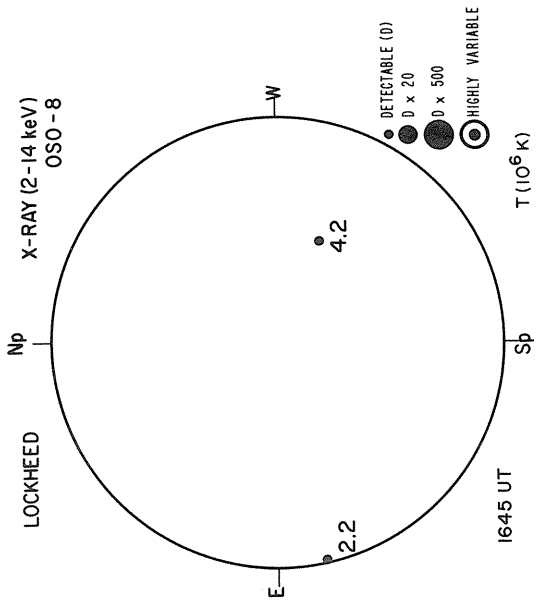


AUGUST 16, 1976 (P=16.4I, B₀=6.7I, L₀=18.14)



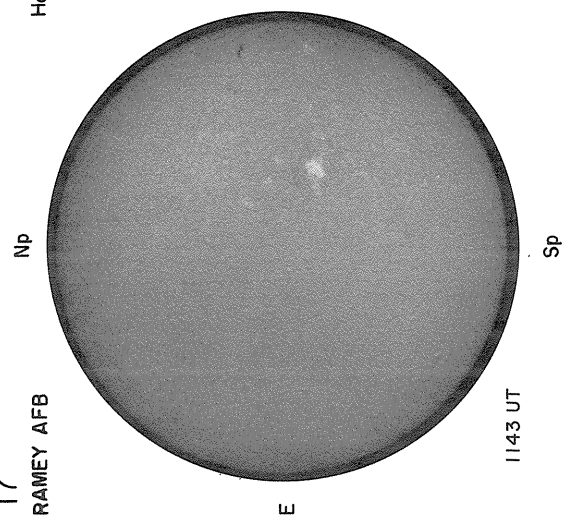


AUGUST 17, 1976 (P=16.74, B₀ = 6.76, L₀ = 4.92)

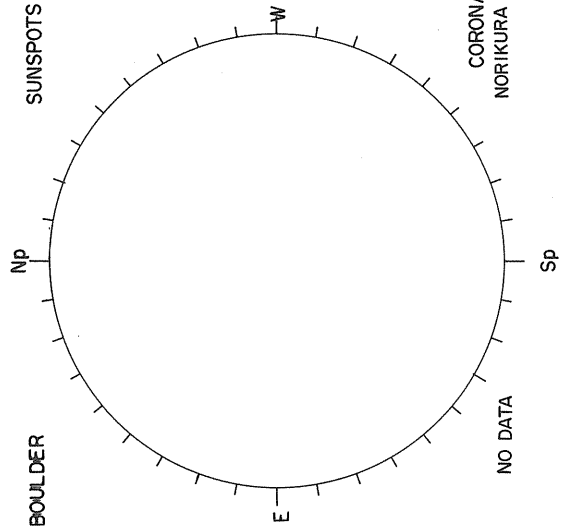


17

RAMEY AFB

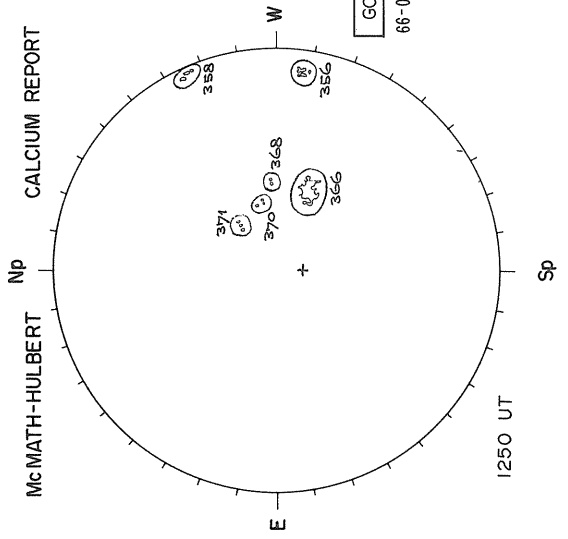


H α BOULDER



CORONA
NORIKURA

SUNSPOTS



McMATH-HULBERT

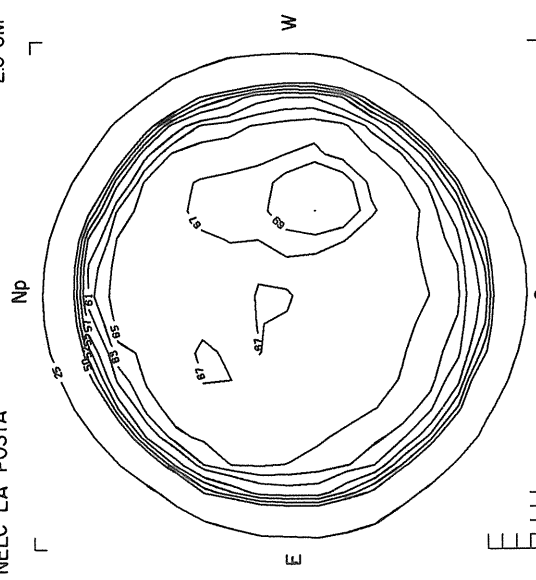
CALCIUM REPORT

NELC LA POSTA

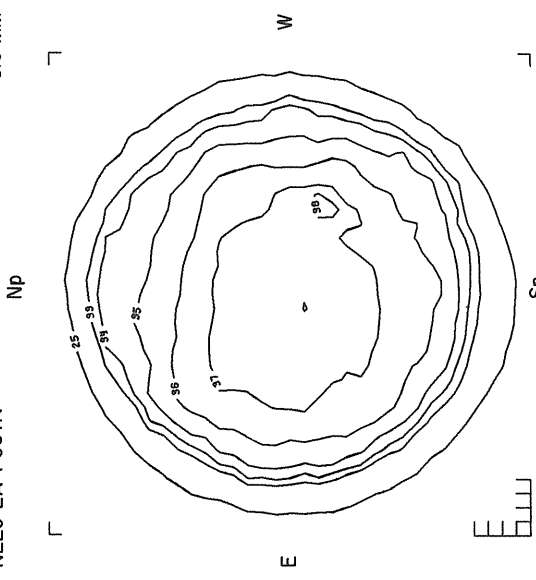
2.0 CM

NELC LA POSTA

8.6 MM

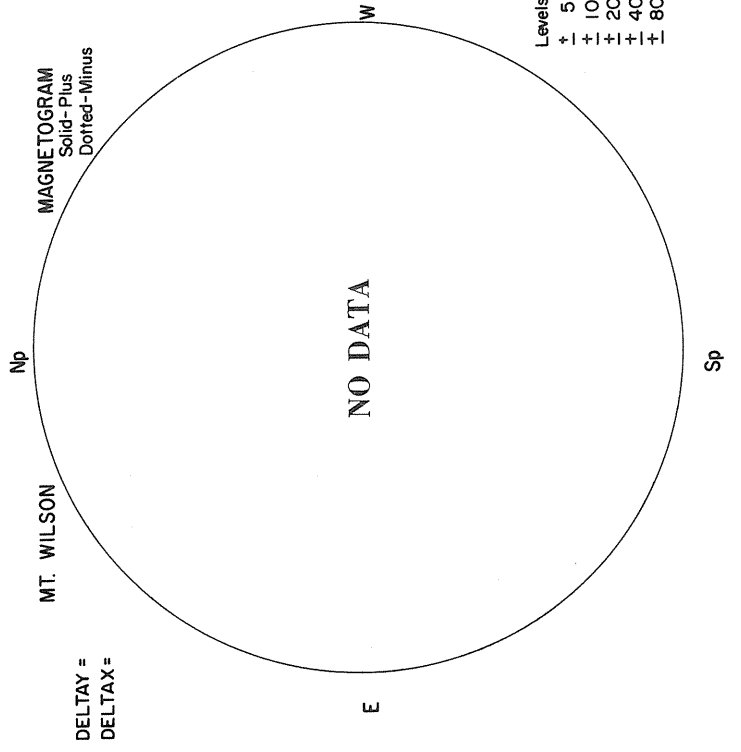
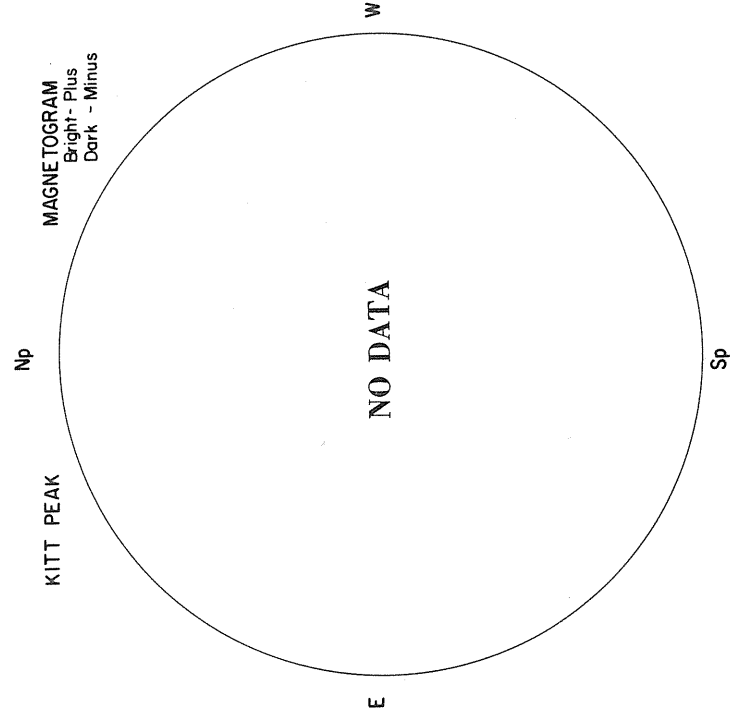
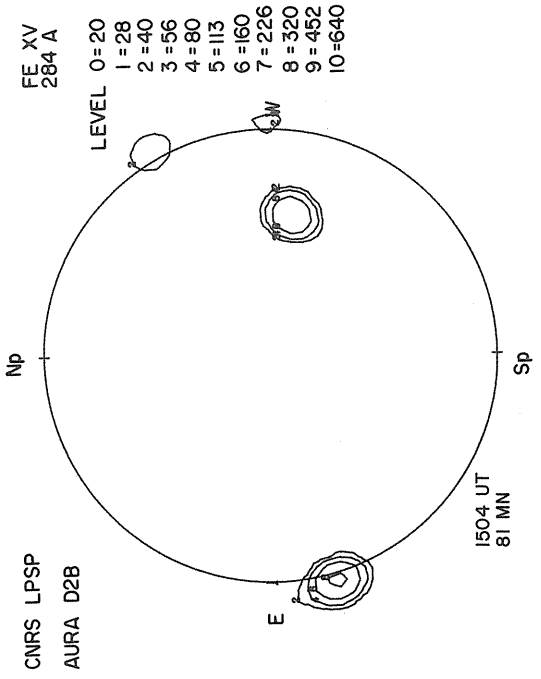
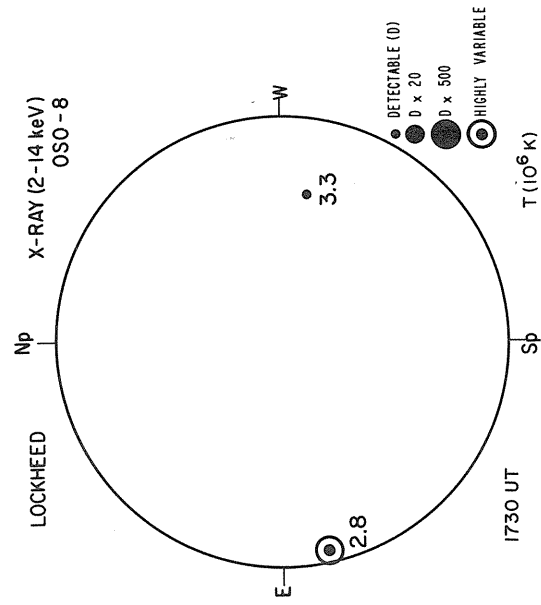


Ant. Temp Unit 100°K

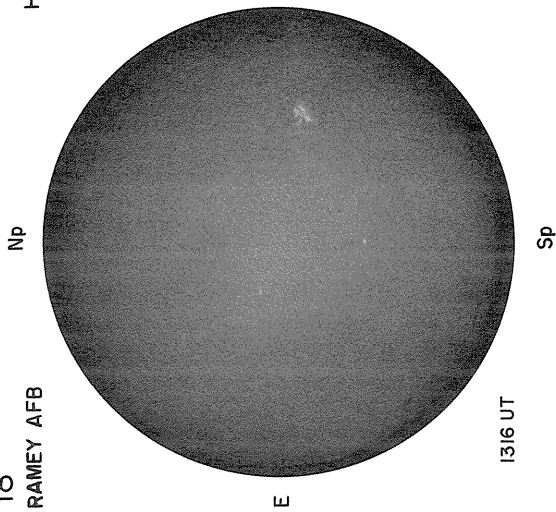


Ant. Temp Unit 100°K

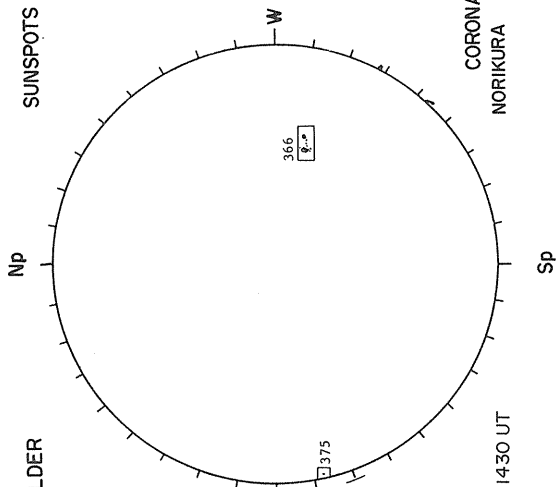
AUGUST 18, 1976 (P = 17.07, $B_0 = 6.80$, $L_0 = 35.71$)



18
RAMEY AFB

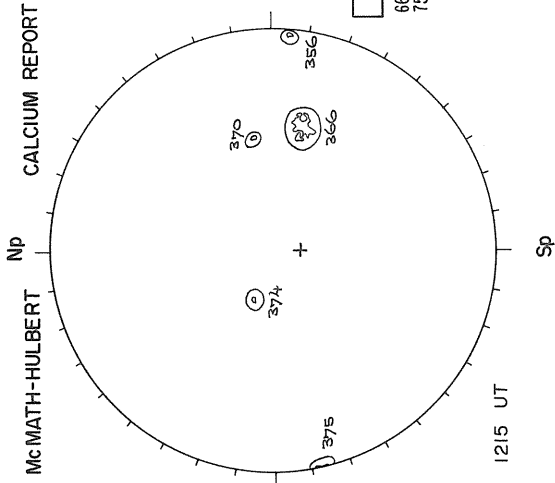


H α BOULDER



SUNSPOTS

CORONA
NORIKURA

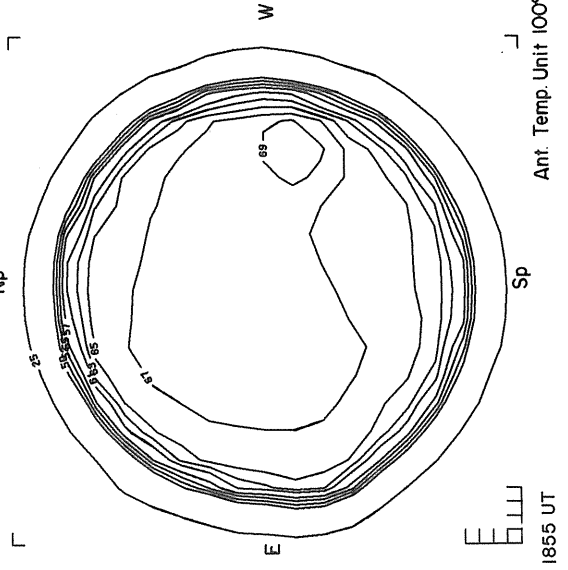


CALCIUM REPORT

FAIR	S
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66-1200-4.0
75-0700-2.5

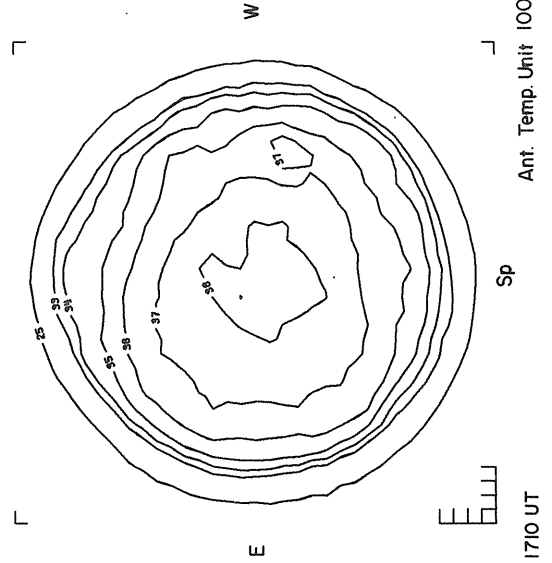
NELC LA POSTA



2.0 CM

Ant. Temp. Unit 100°K

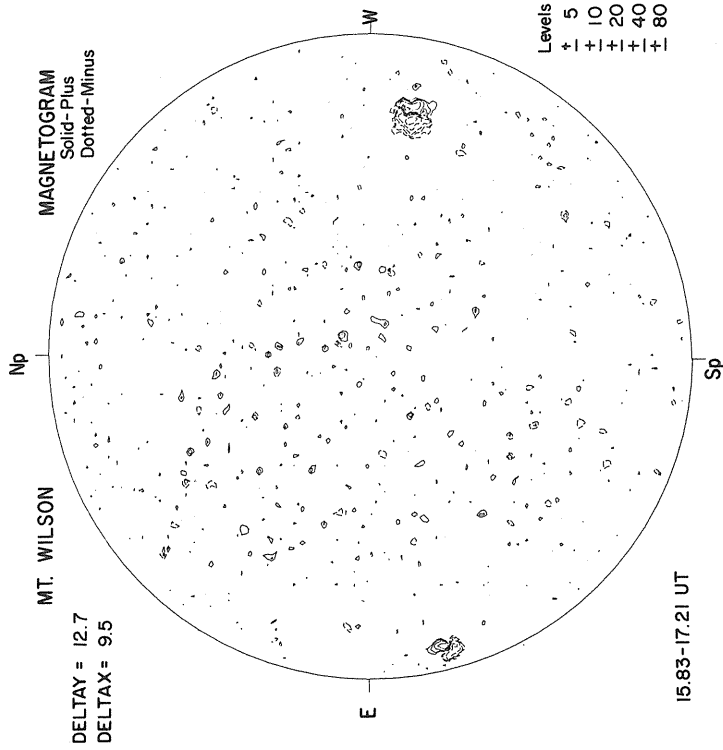
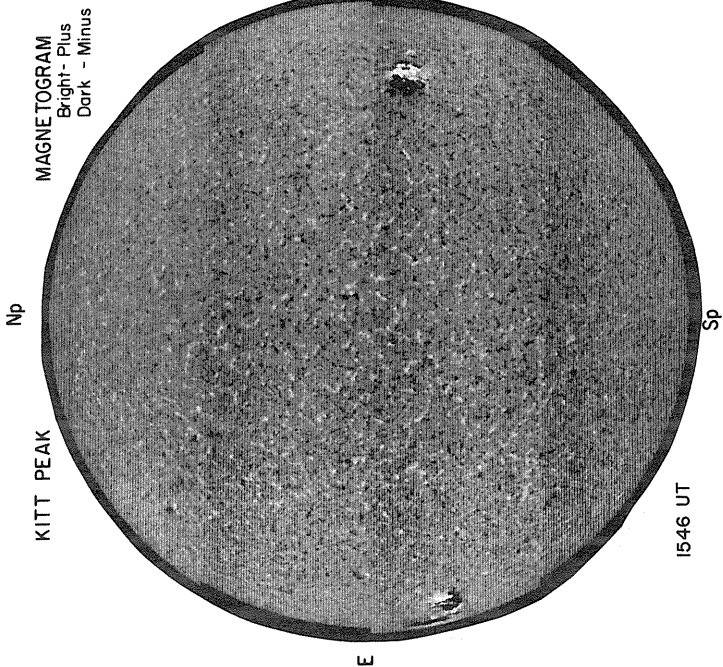
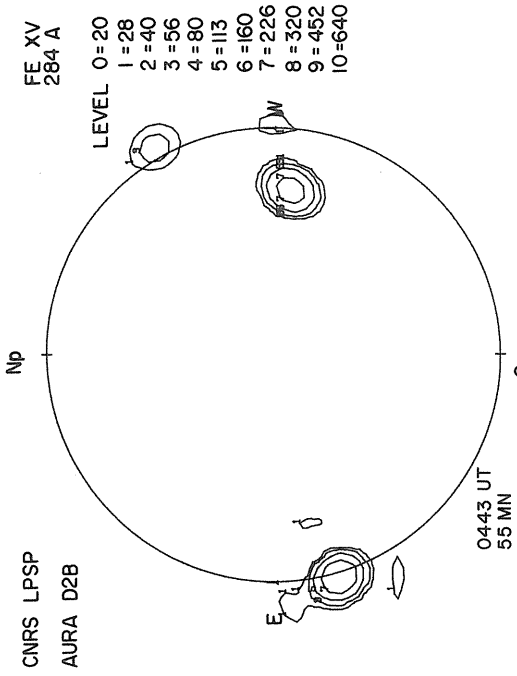
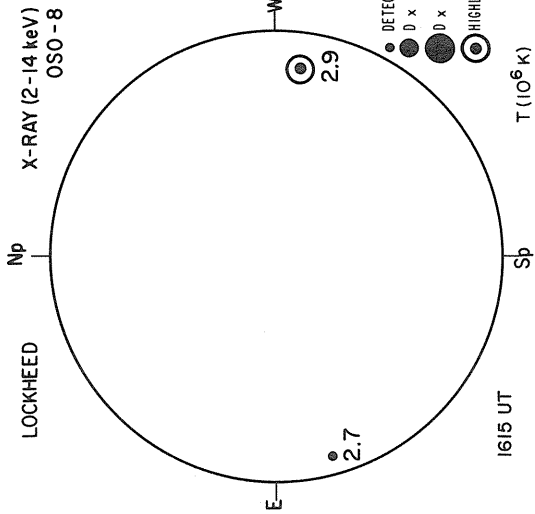
NELC LA POSTA

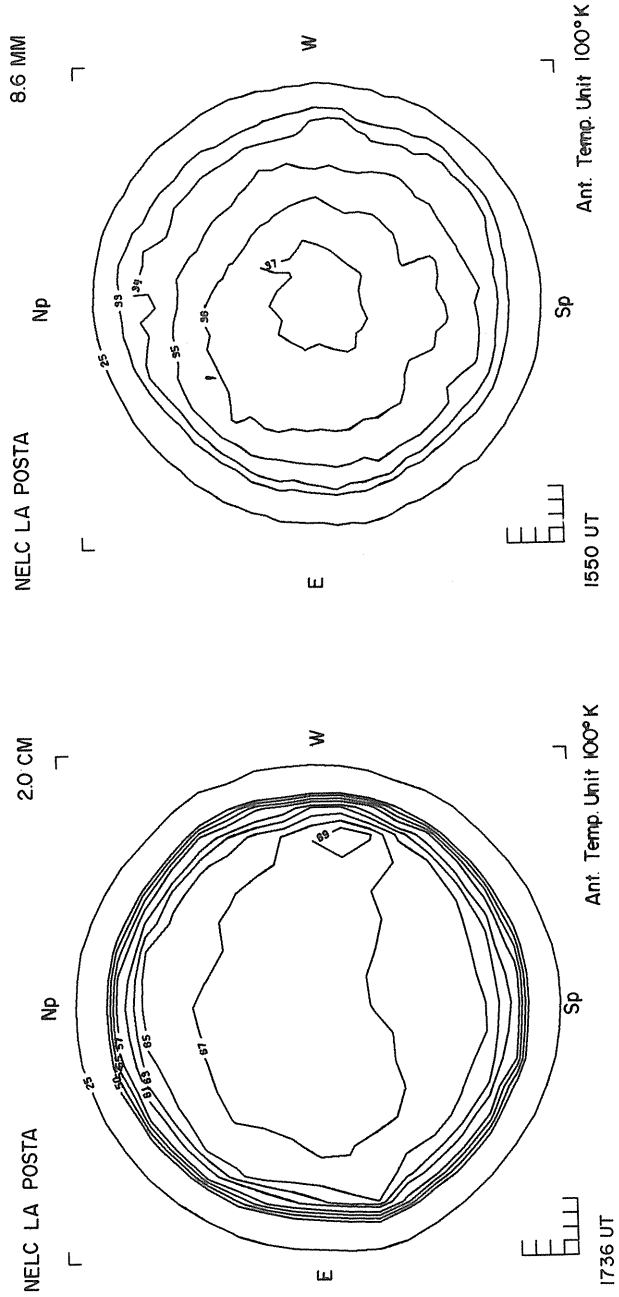
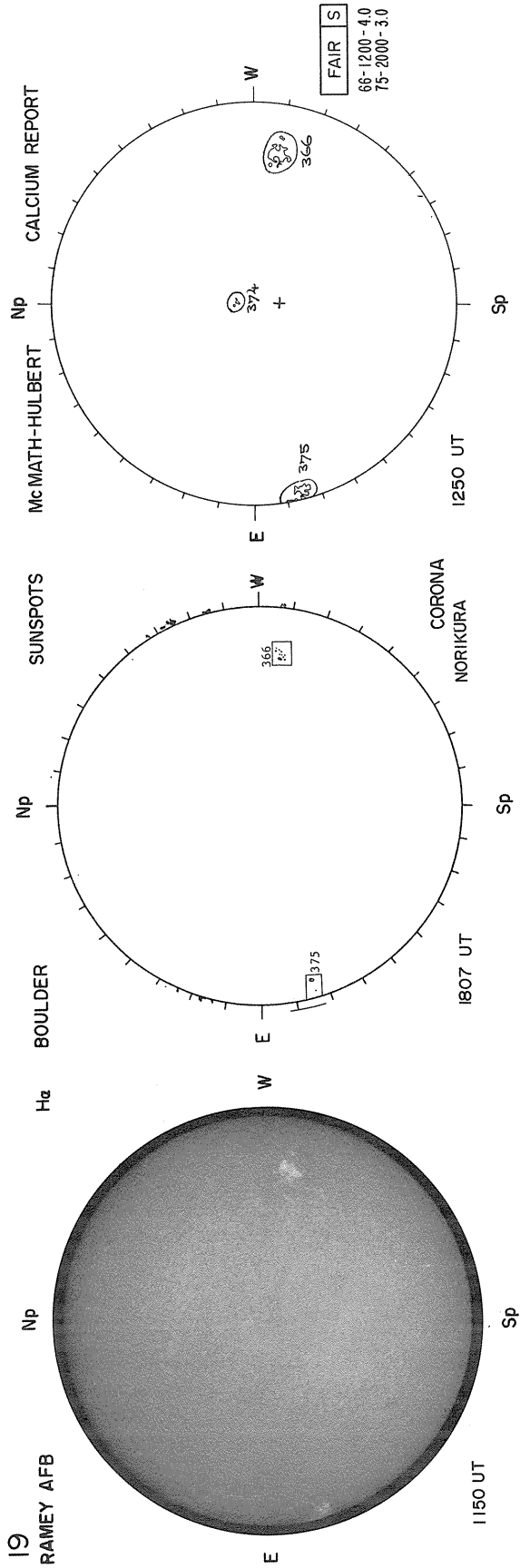


8.6 MM

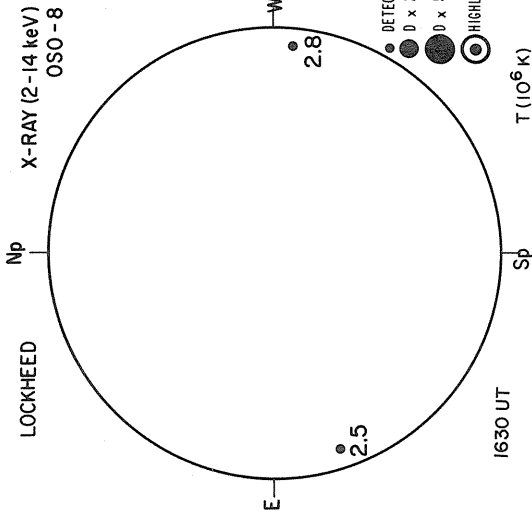
Ant. Temp. Unit 100°K

AUGUST 19, 1976 (P=17.39, $B_0 = 6.84$, $L_0 = 338.49$)





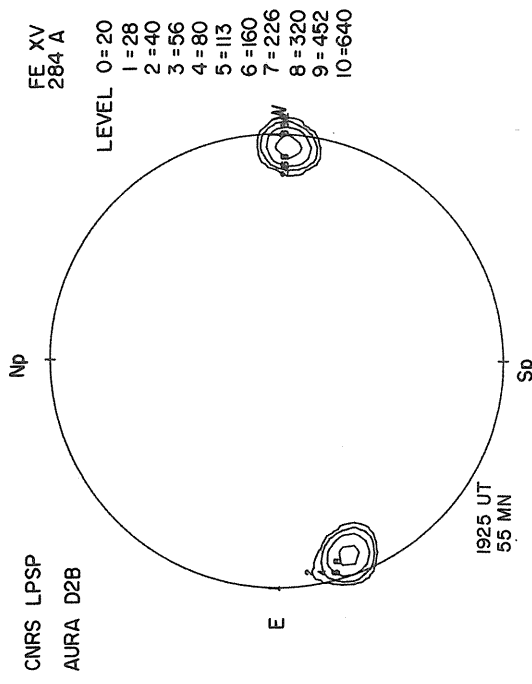
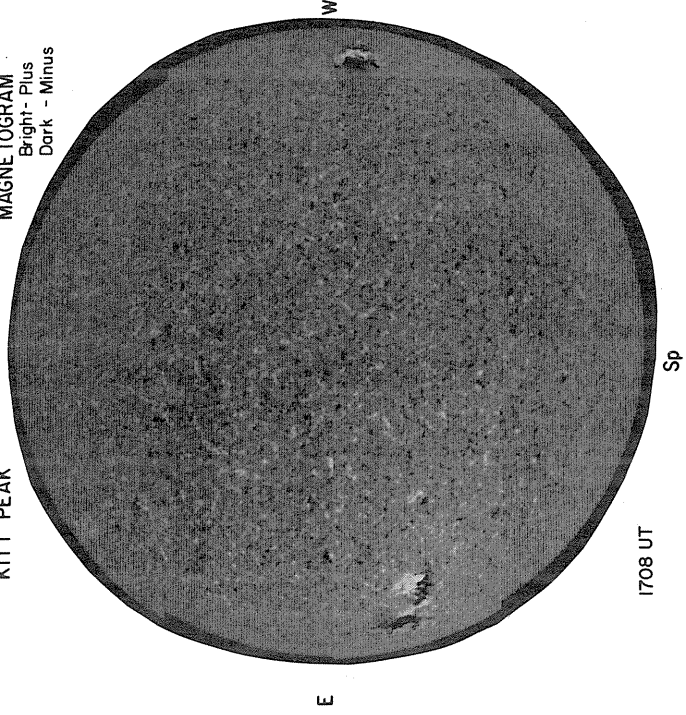
AUGUST 20, 1976 (P = 17.7), $B_0 = 6.88$, $L_0 = 325.27$



- DETECTABLE (0)
- 0 x 20
- 0 x 500
- ⊙ HIGHLY VARIABLE

T (10^6 K)

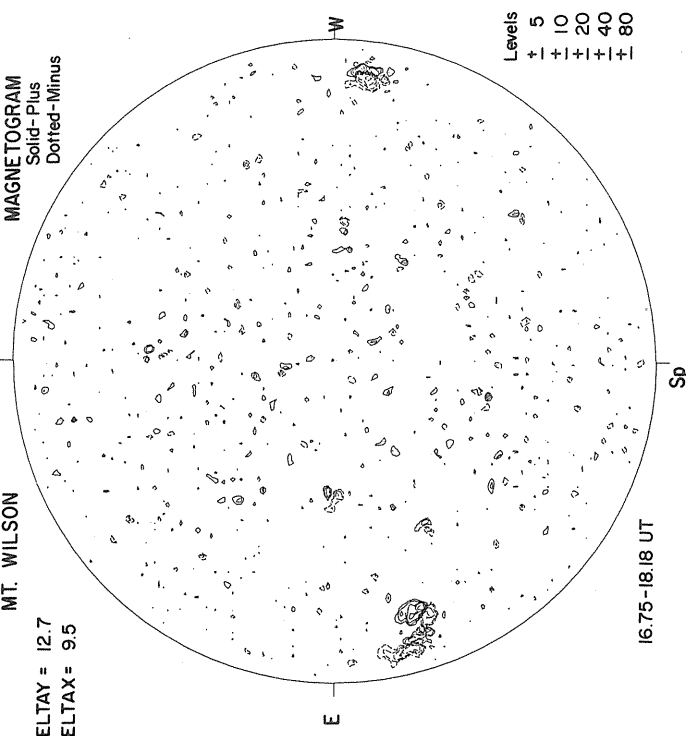
KITT PEAK
MAGNETOGRAM
Bright - Plus
Dark - Minus



- LEVEL
- 0 = 20
 - 1 = 28
 - 2 = 40
 - 3 = 56
 - 4 = 80
 - 5 = 113
 - 6 = 160
 - 7 = 226
 - 8 = 320
 - 9 = 452
 - 10 = 640

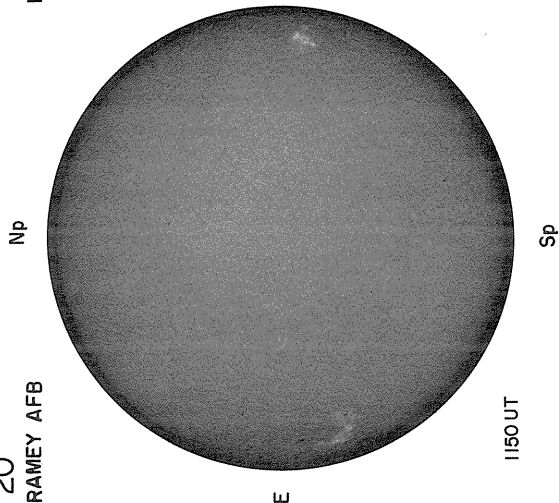
MT. WILSON
MAGNETOGRAM
Solid - Plus
Dotted - Minus

DELTA Y = 12.7
DELTA X = 9.5

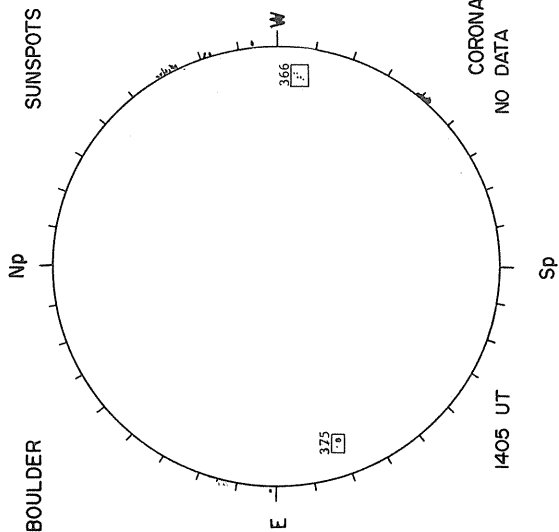


- Levels
- ± 5
 - ± 10
 - ± 20
 - ± 40
 - ± 80

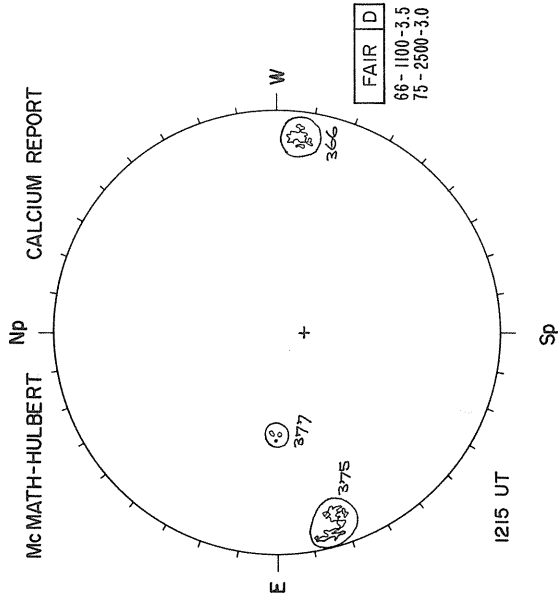
20
RAMEY AFB



H α BOULDER

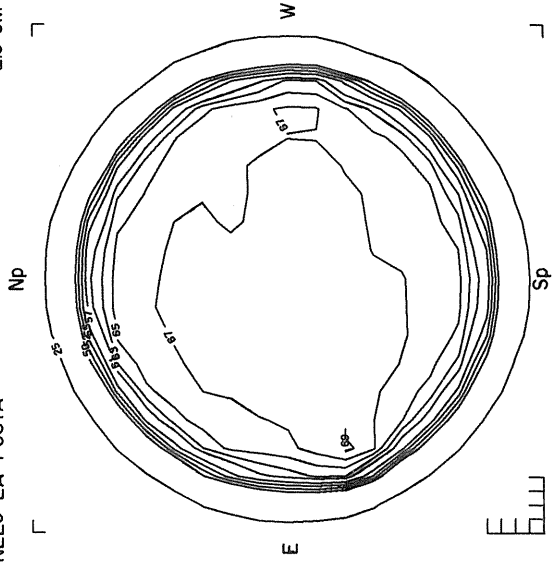


McMATH-HULBERT
CALCIUM REPORT



NELC LA POSTA

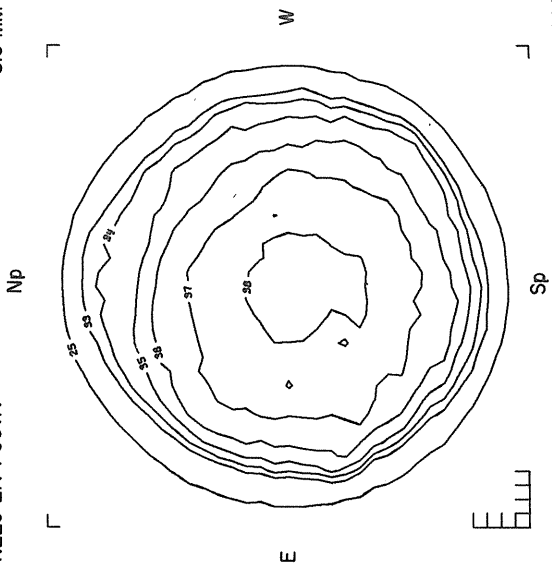
2.0 CM



Ant. Temp. Unit 100°K

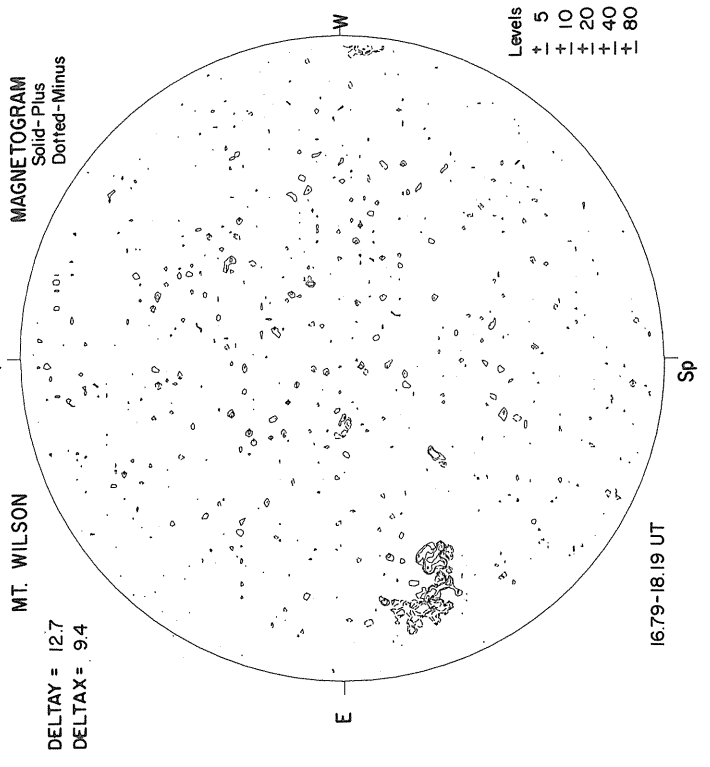
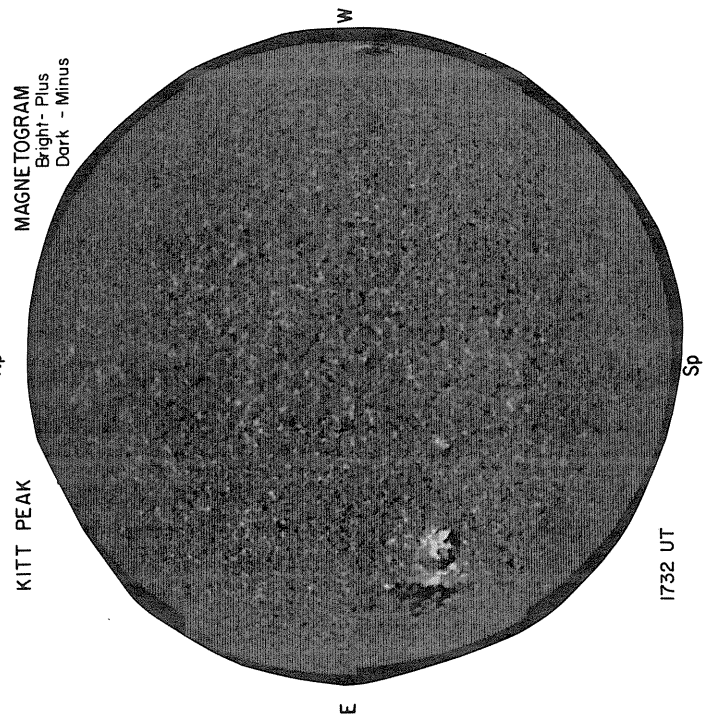
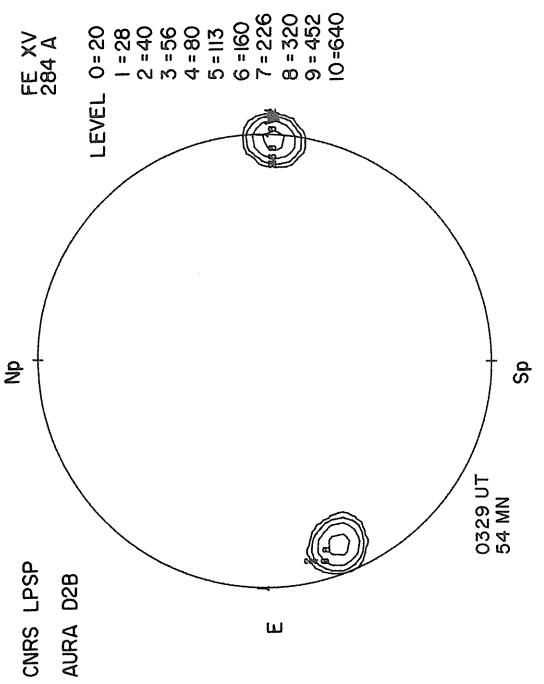
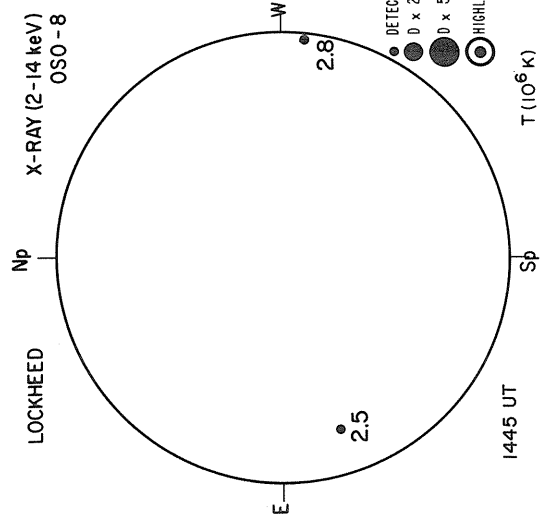
NELC LA POSTA

8.6 MM

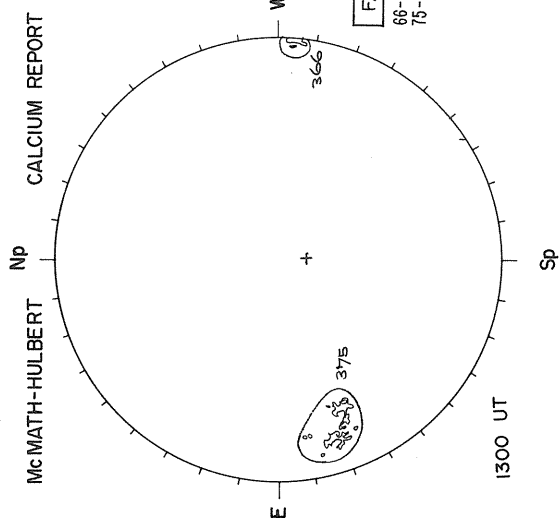
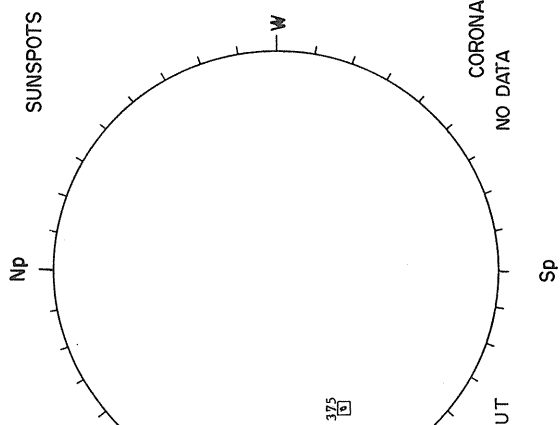
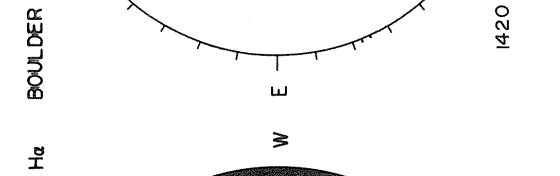
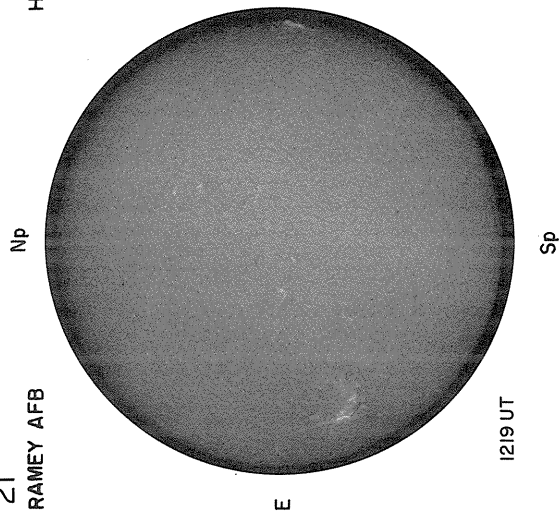


Ant. Temp. Unit 100°K

AUGUST 21, 1976 (P=18.02, $B_0 = 6.92$, $L_0 = 312.06$)

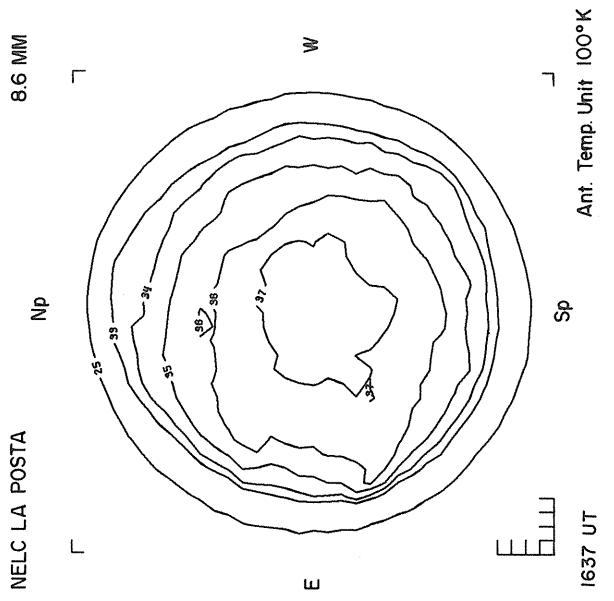
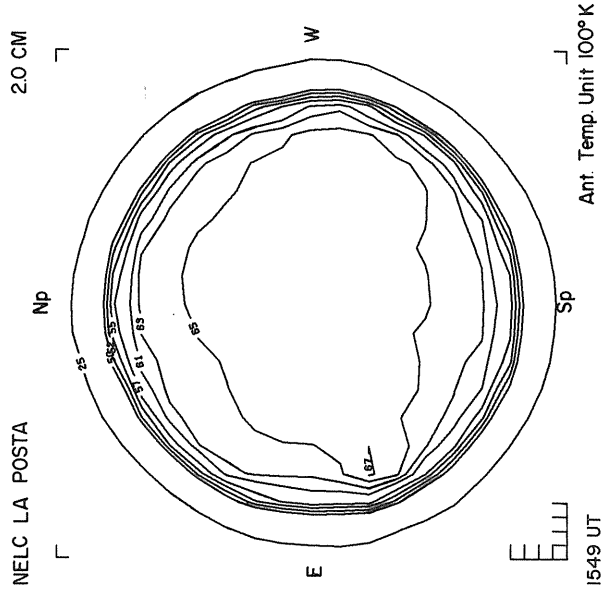


21
RAMEY AFB

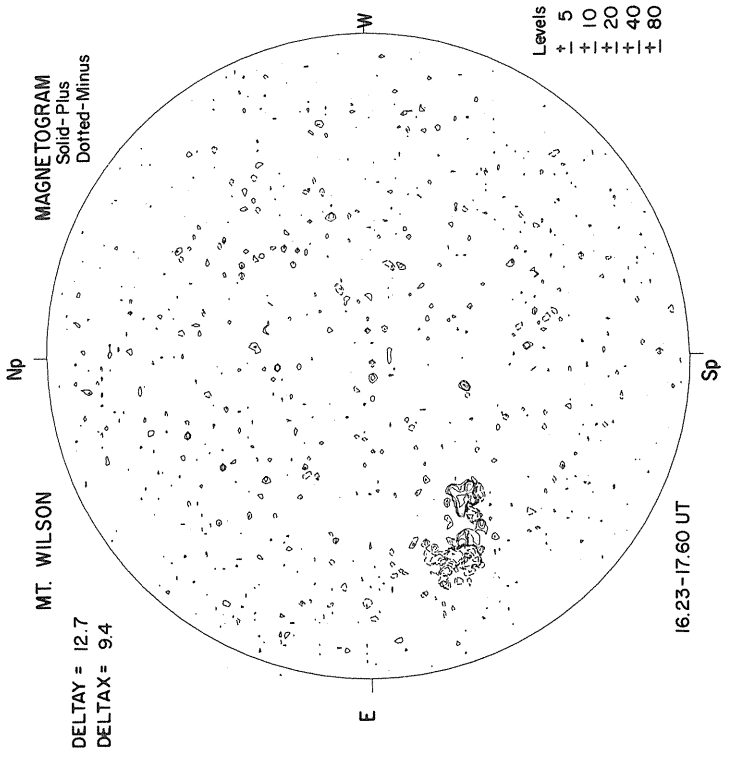
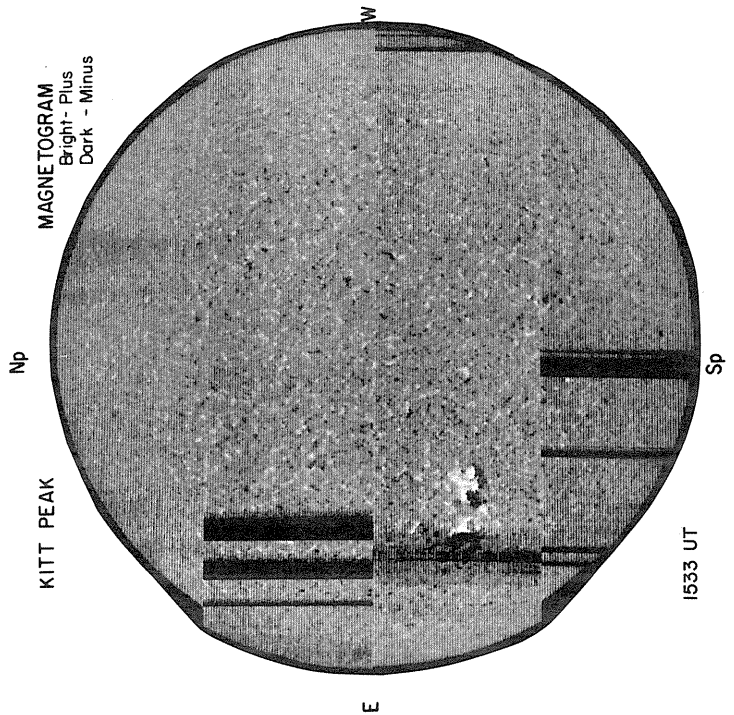
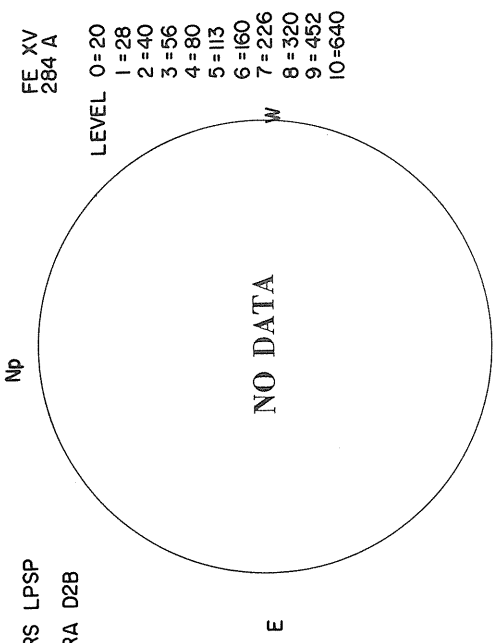
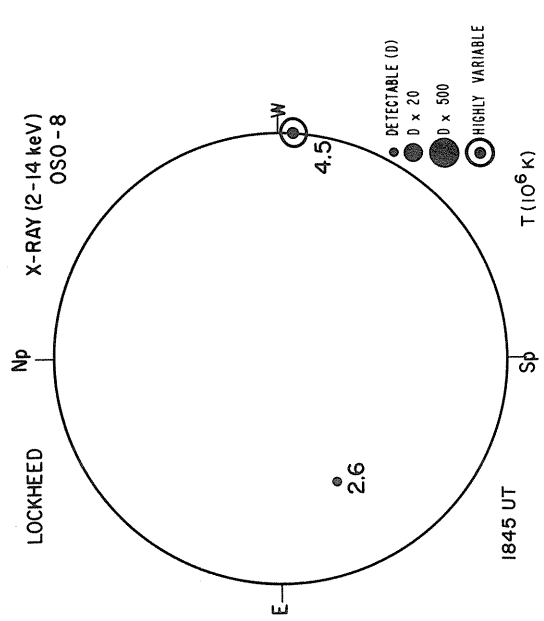


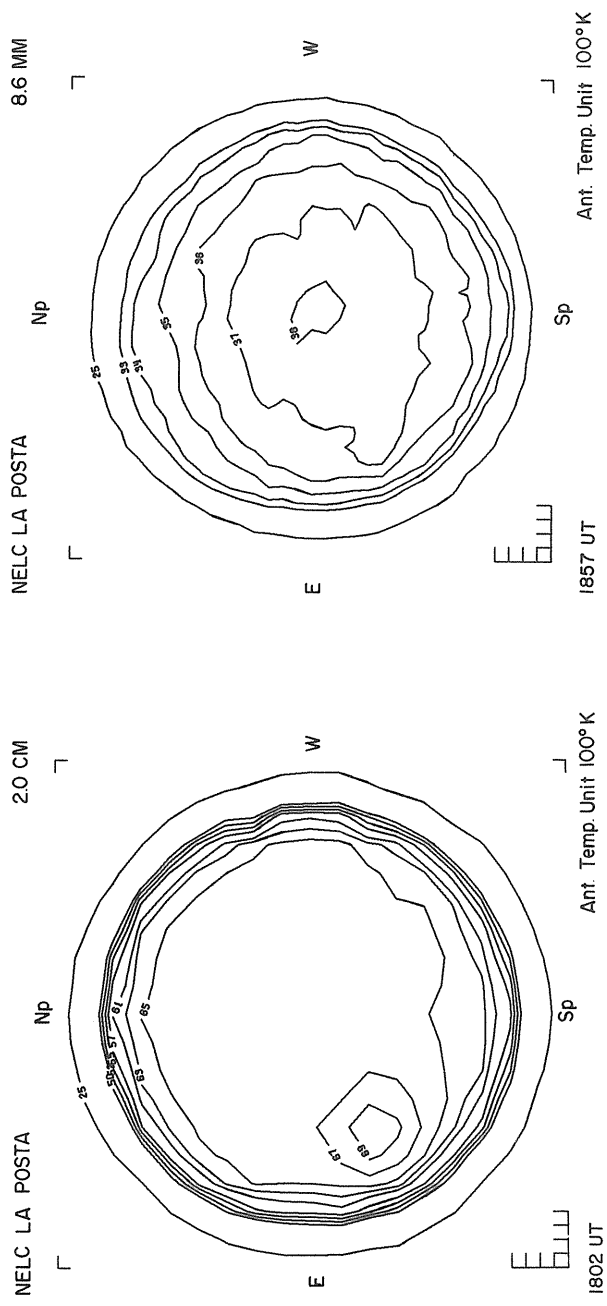
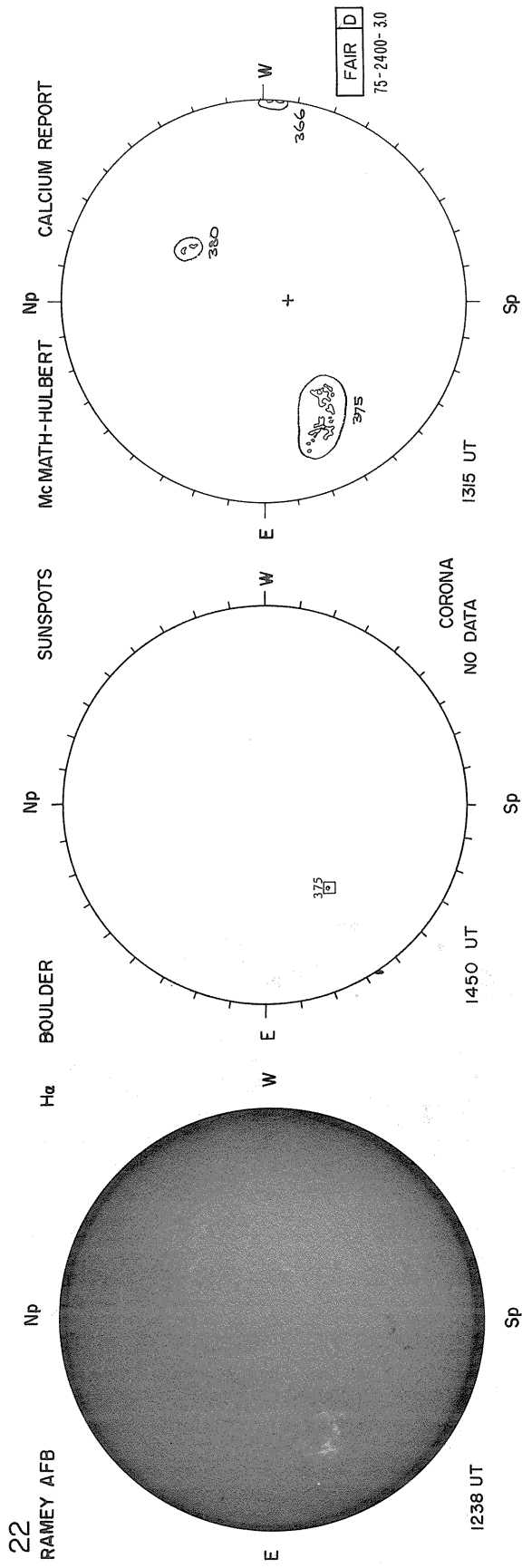
FAIR · M
66-1100-3.0
75-2700-3.0

NELC LA POSTA
20 CM
NELC LA POSTA
8.6 MM

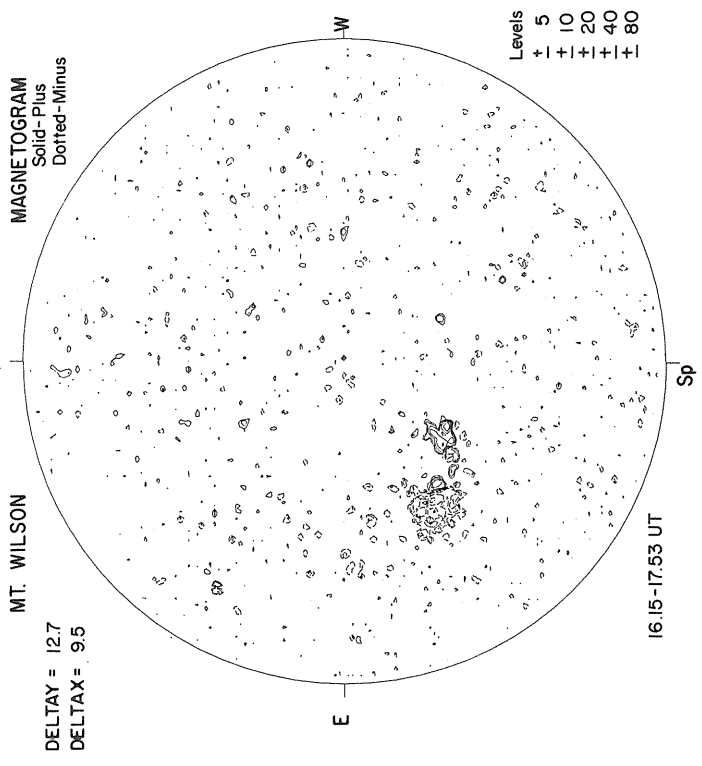
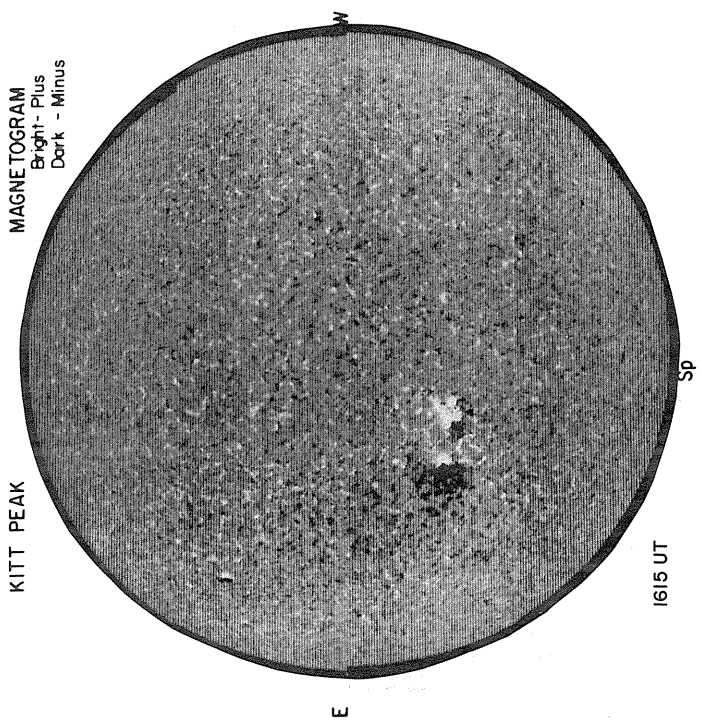
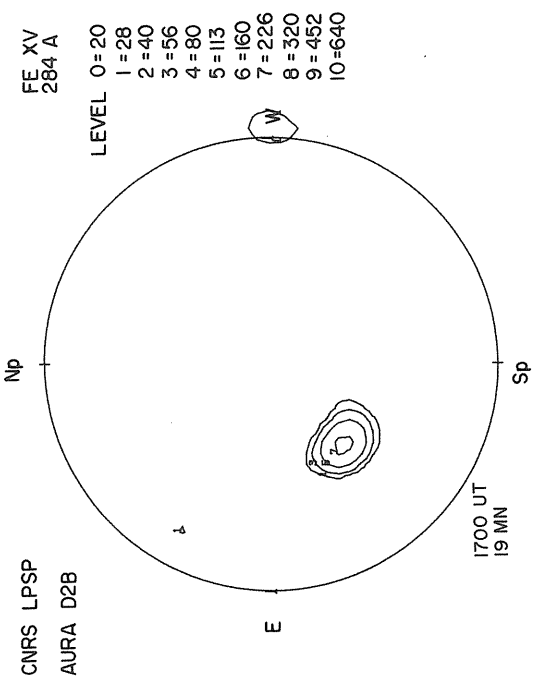
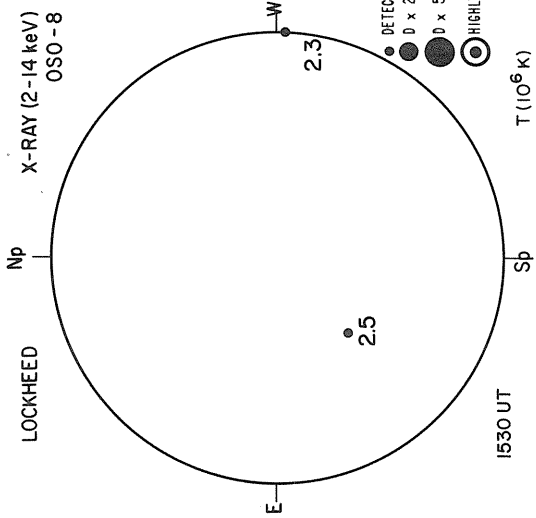


AUGUST 22, 1976 (P = 18.33, $B_0 = 6.95$, $L_0 = 298.84$)

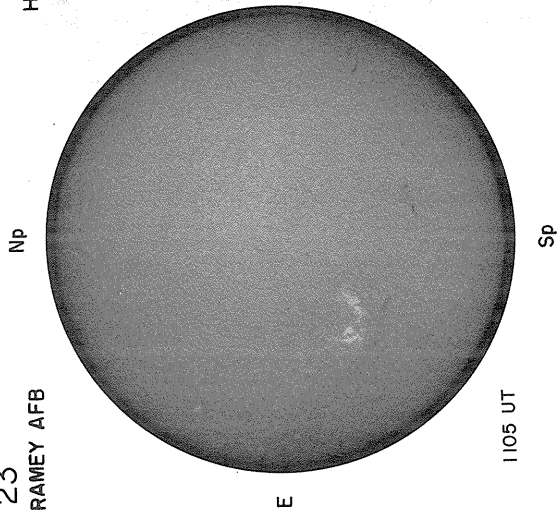




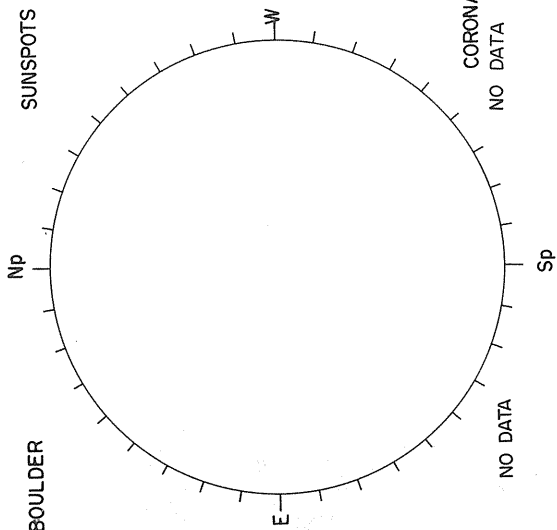
AUGUST 23, 1976 (P = 18.64, B₀ = 6.99, L₀ = 285.63)



23
RAMEY AFB



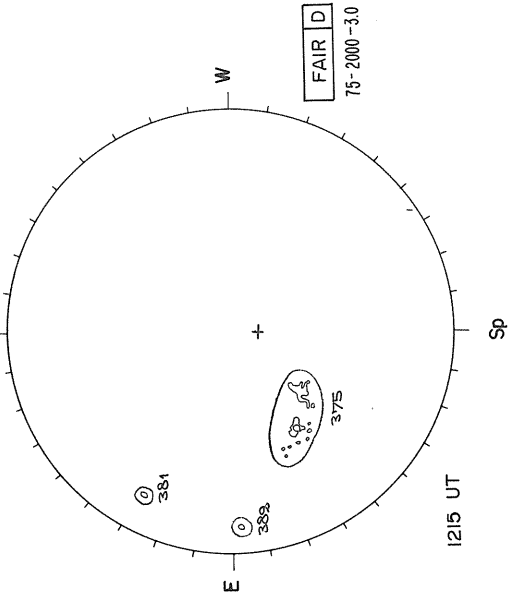
H α BOULDER



SUNSPOTS

CORONA
NO DATA

Mc MATH-HULBERT
CALCIUM REPORT

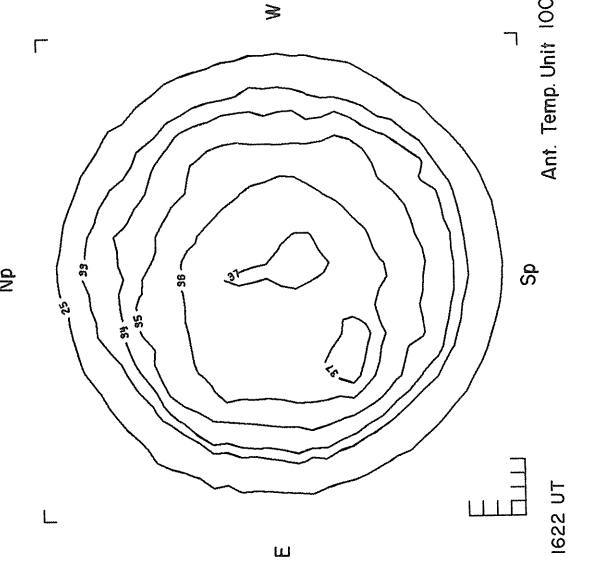
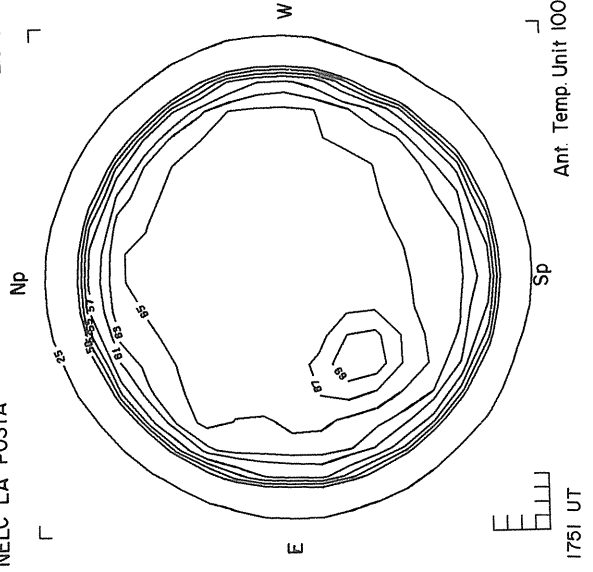


NELC LA POSTA

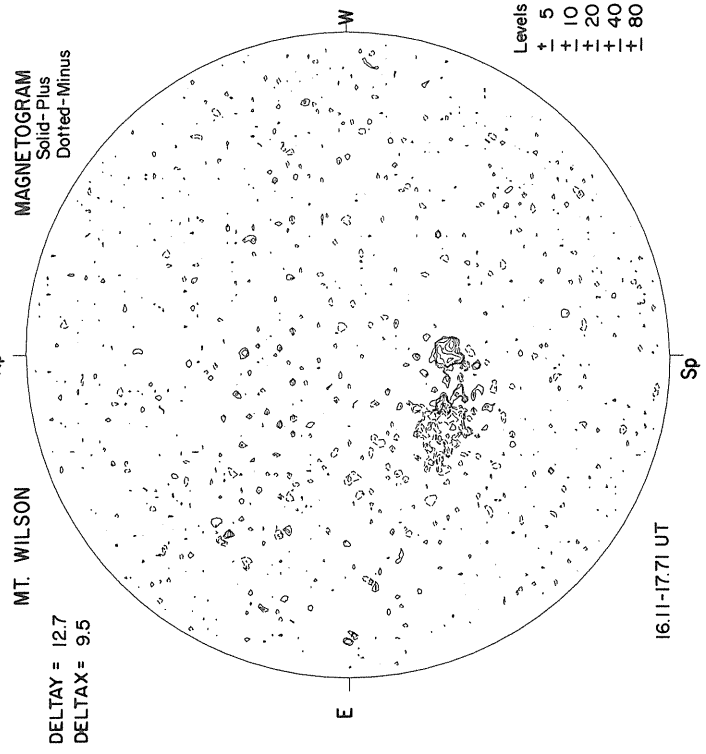
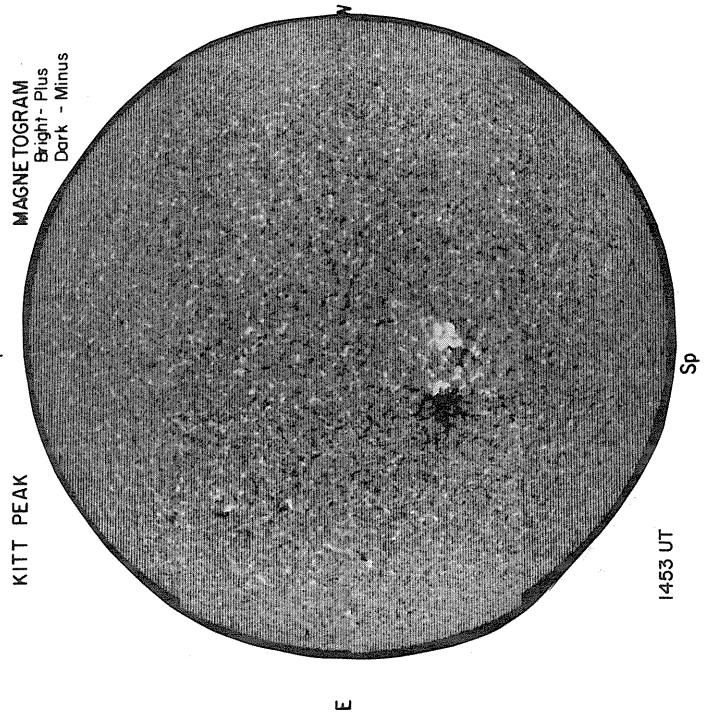
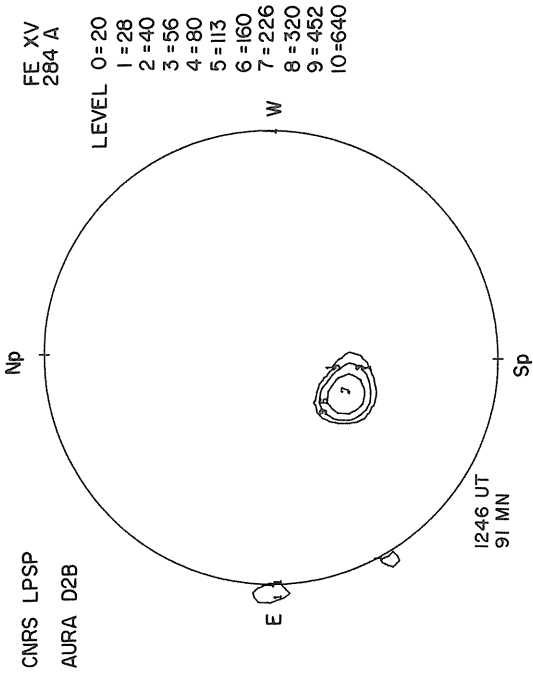
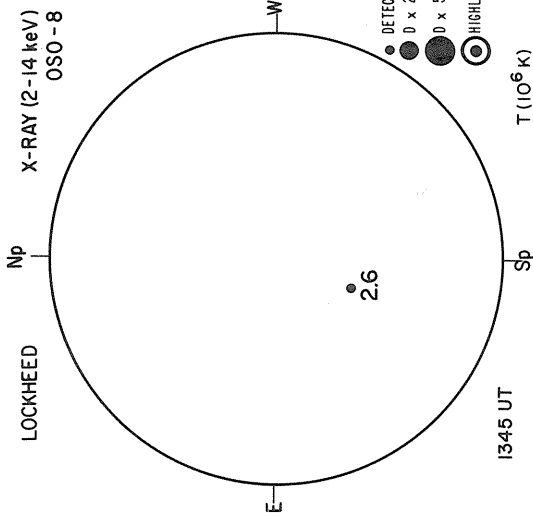
2.0 CM

NELC LA POSTA

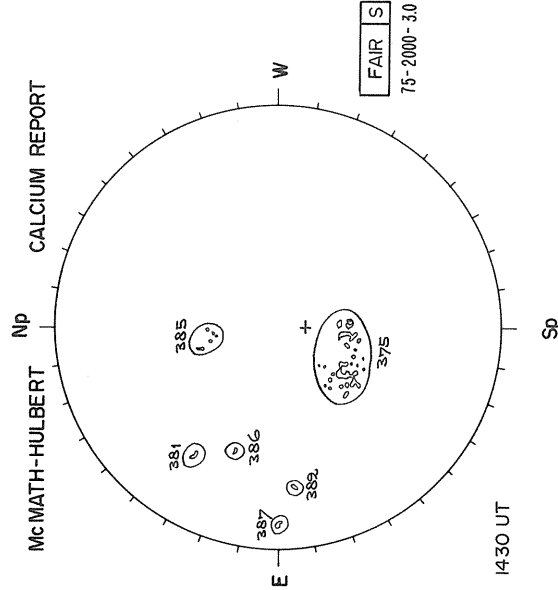
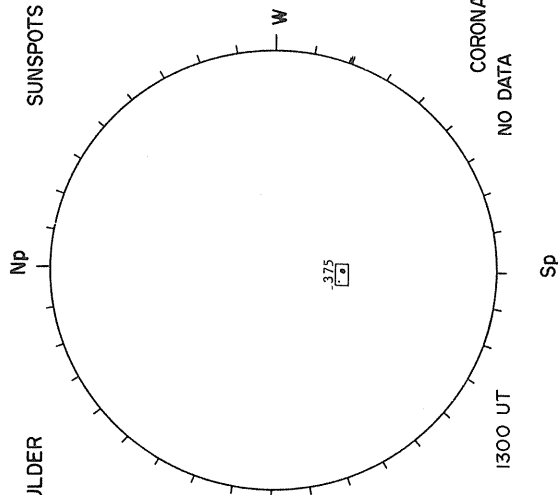
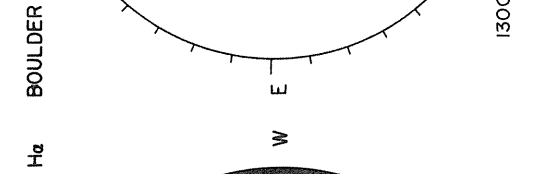
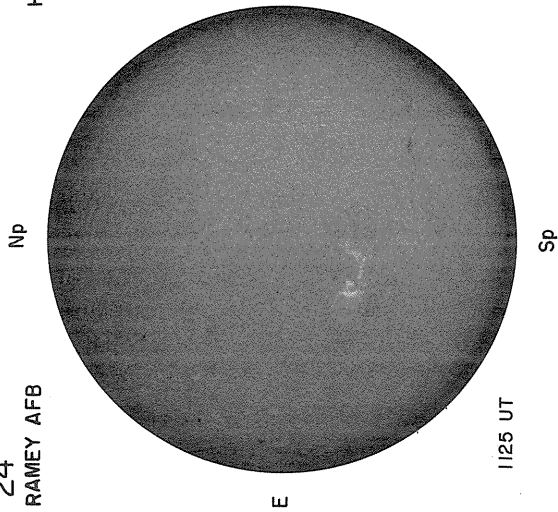
8.6 MM



AUGUST 24, 1976 (P = 18.94, B₀ = 7.02, L₀ = 272.42)

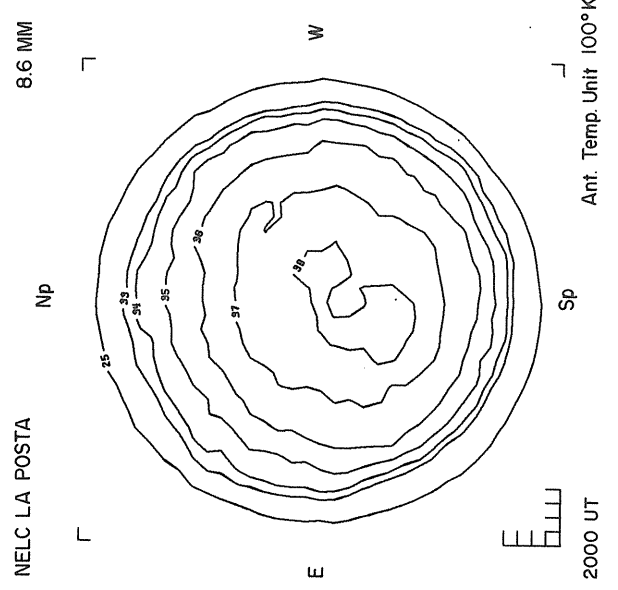
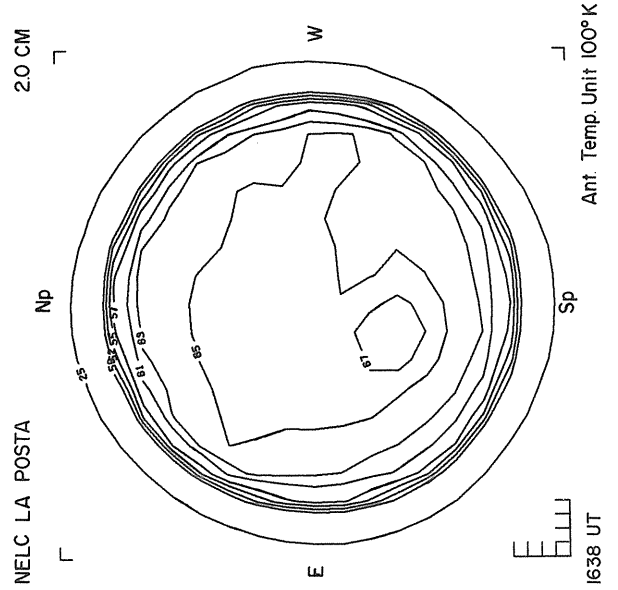


24
RAMEY AFB



FAIR S
75-2000-30

CORONA
NO DATA



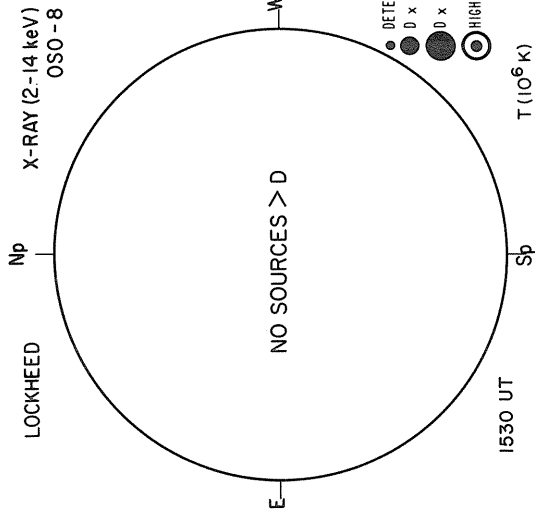
8.6 MM

2.0 CM

Ant. Temp. Unit 100°K

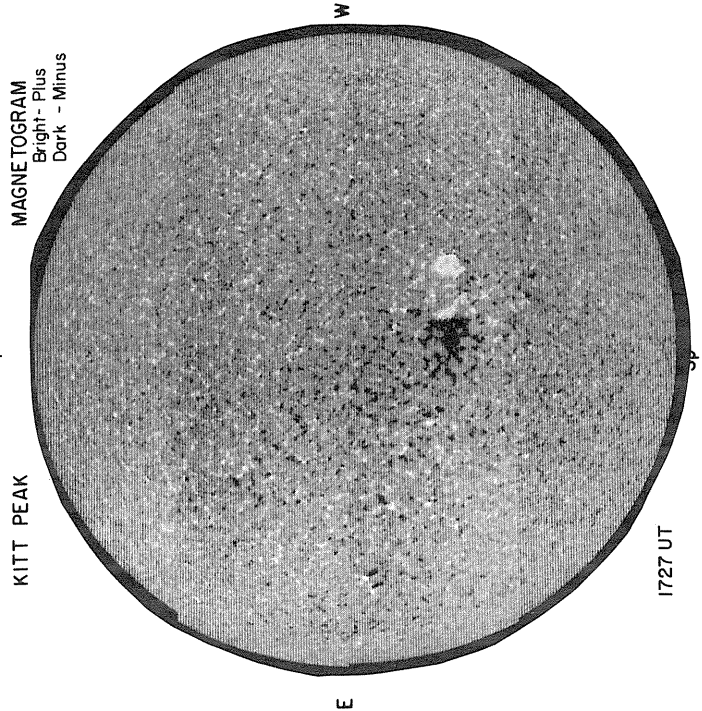
Ant. Temp. Unit 100°K

AUGUST 25, 1976 (P=19.23, $B_0 = 7.05$, $L_0 = 259.20$)

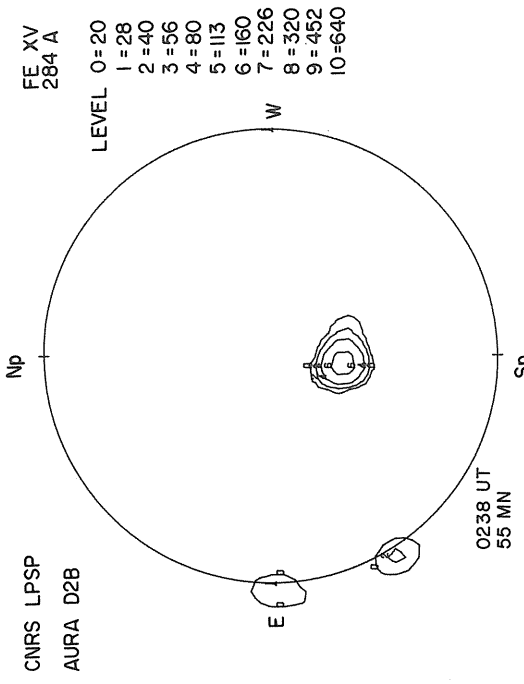


- DETECTABLE (D)
- 0 x 20
- 0 x 500
- ⊙ HIGHLY VARIABLE

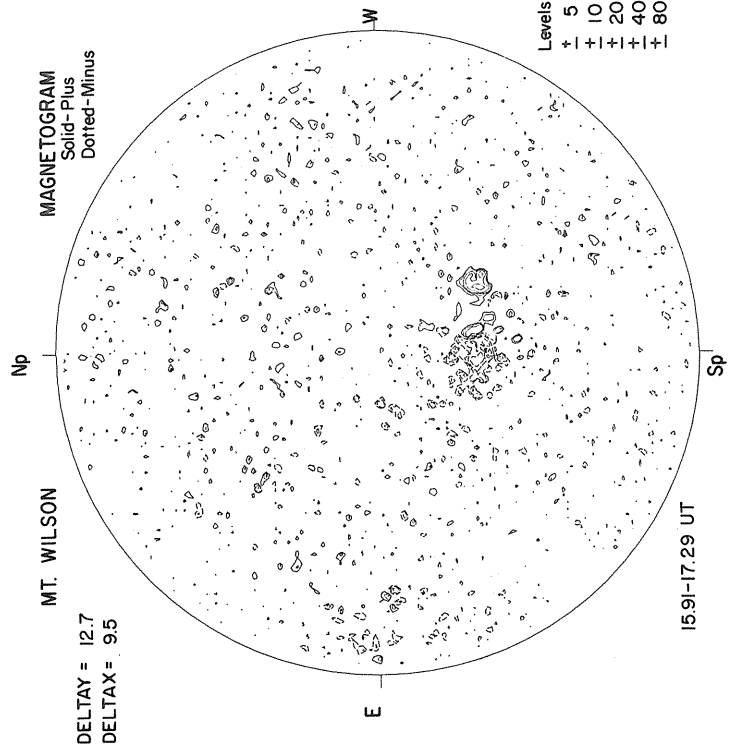
T (10^6 K)



MAGNETOGRAM
Bright- Plus
Dark - Minus



- FE XV 284 A
- LEVEL 0=20
1=28
2=40
3=56
4=80
5=113
6=160
7=226
8=320
9=452
10=640

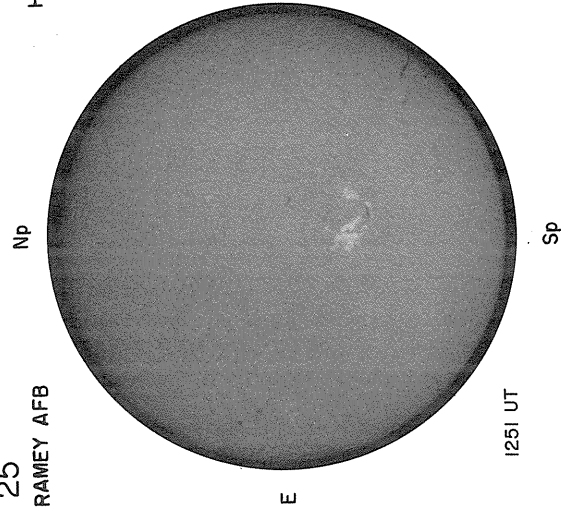


DELTA Y = 12.7
DELTA X = 9.5

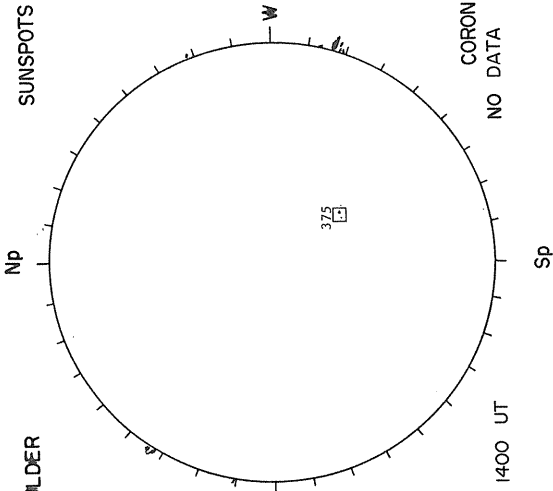
MAGNETOGRAM
Solid- Plus
Dotted- Minus

- Levels
+ 5
+ 10
+ 20
+ 40
+ 80

25
RAMEY AFB

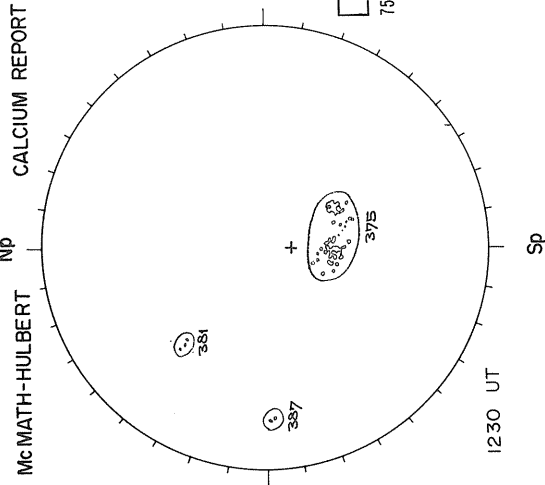


H α BOULDER



SUNSPOTS

CORONA



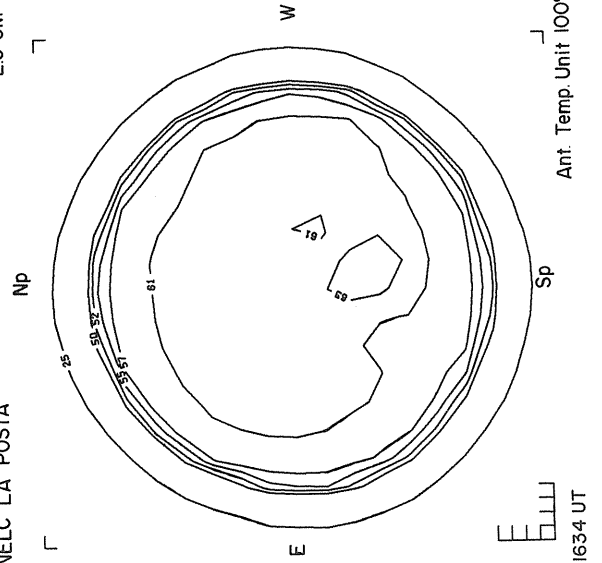
McMATH-HULBERT

CALCIUM REPORT

FAIR S
75-1600-2.5

NELC LA POSTA

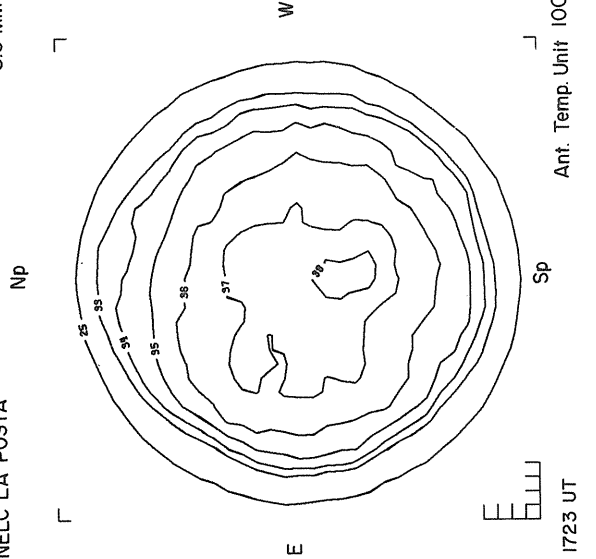
2.0 CM



Ant. Temp. Unit 100°K

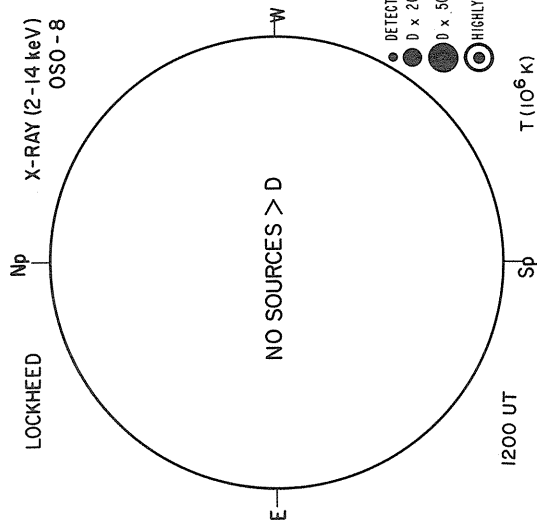
NELC LA POSTA

8.6 MM



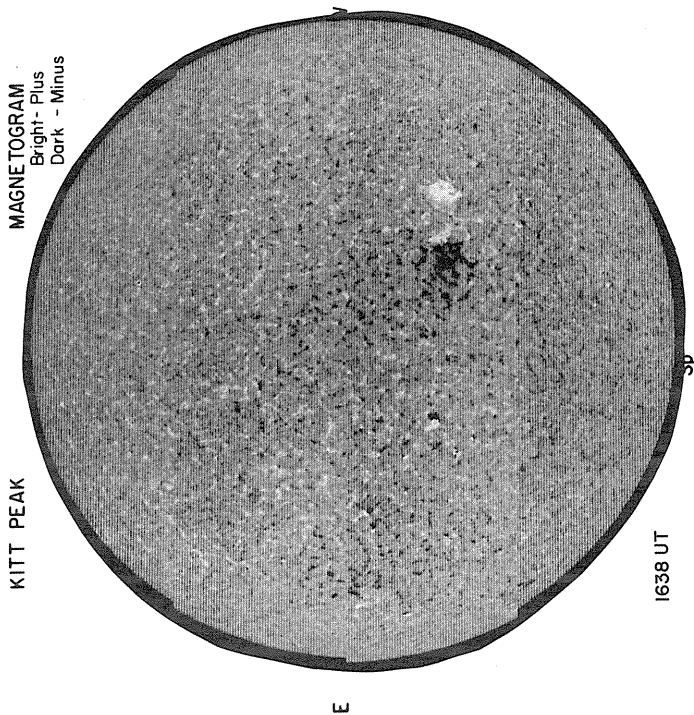
Ant. Temp. Unit 100°K

AUGUST 26, 1976 (P = 19.52, $B_0 = 7.08$, $L_0 = 245.99$)

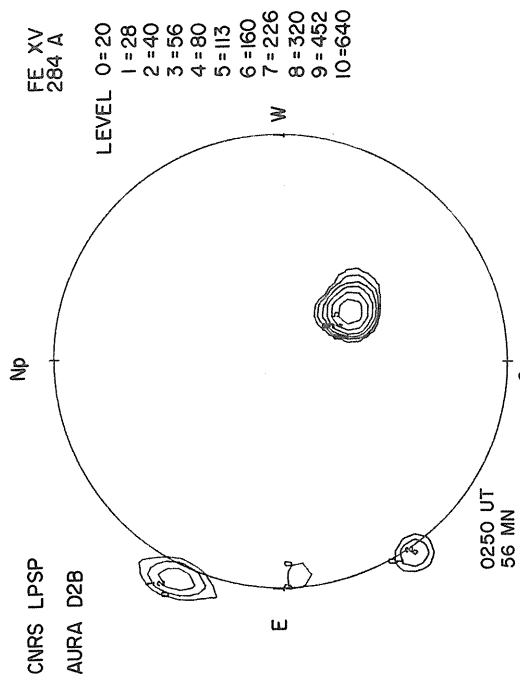


- DETECTABLE (D)
- 0 x 20
- 0 x 500
- HIGHLY VARIABLE

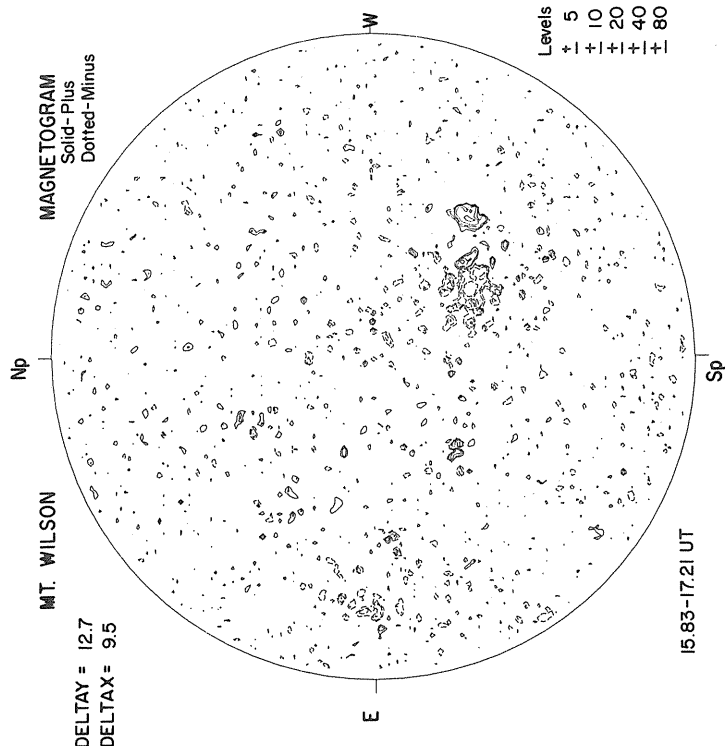
T (10^6 K)



MAGNETOGRAM
Bright - Plus
Dark - Minus



- FE XV 284 A
- LEVEL 0 = 20
- 1 = 28
 - 2 = 40
 - 3 = 56
 - 4 = 80
 - 5 = 113
 - 6 = 160
 - 7 = 226
 - 8 = 320
 - 9 = 452
 - 10 = 640

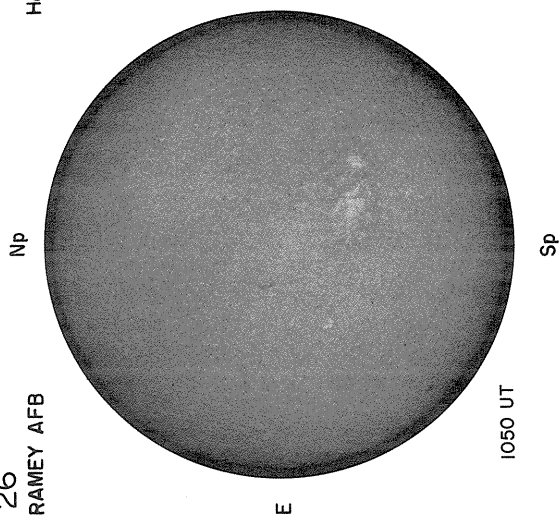


MAGNETOGRAM
Solid - Plus
Dotted - Minus

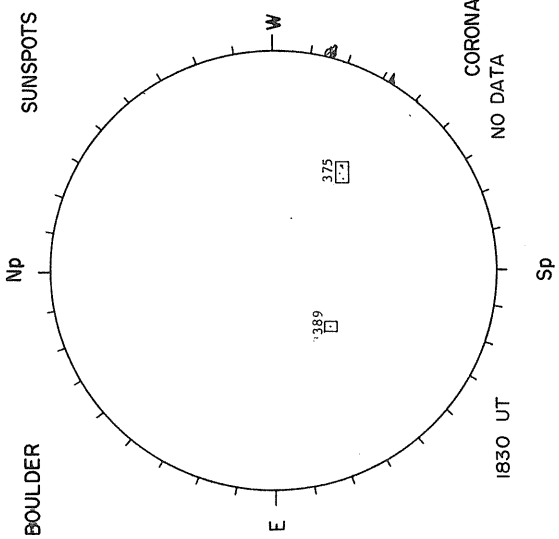
DELTA T = 12.7
DELTA X = 9.5

- Levels
- + 5
 - + 10
 - + 20
 - + 40
 - + 80

26
RAMEY AFB

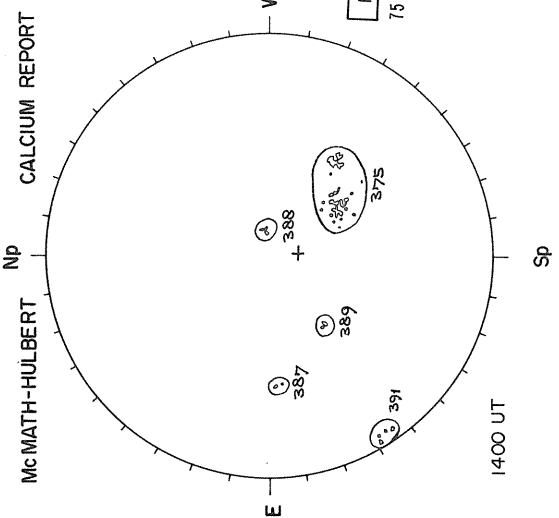


H α BOULDER



SUNSPOTS

CORONA
NO DATA

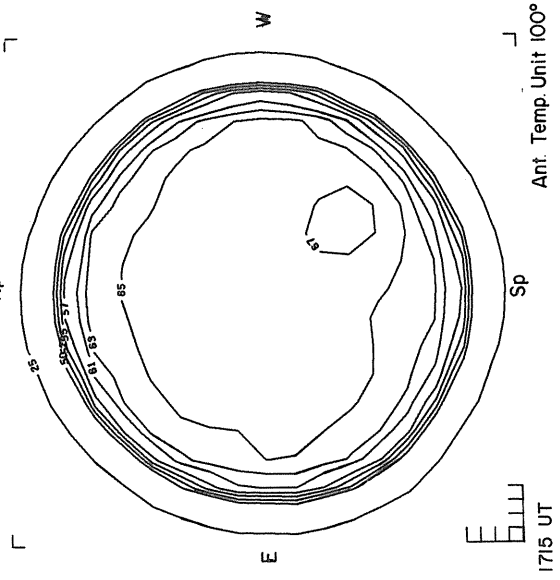


McMATH-HULBERT

CALCIUM REPORT

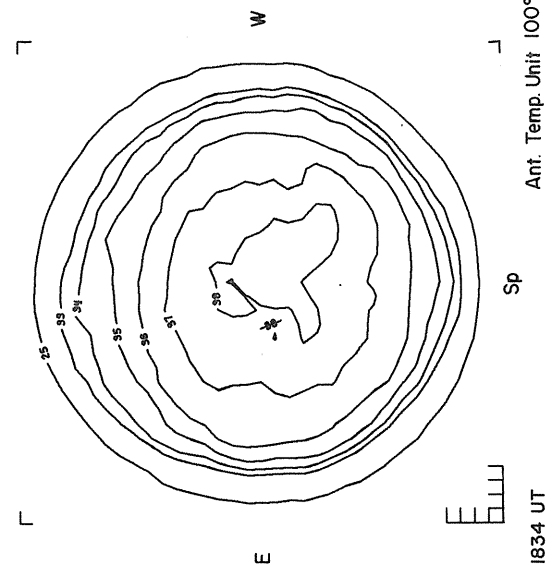
FAIR M
75-1300-2.5

NELC LA POSTA



Ant. Temp. Unit 100°K

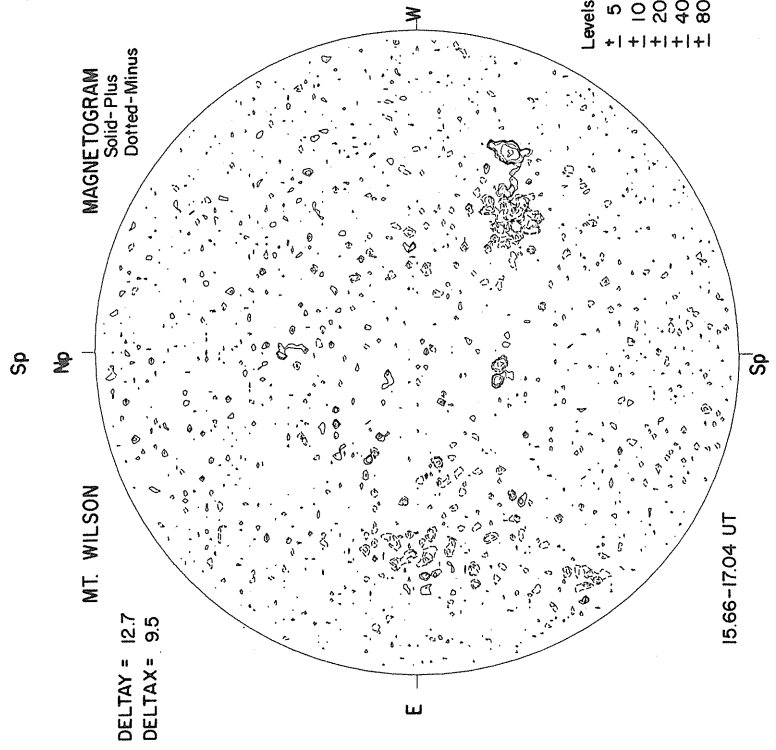
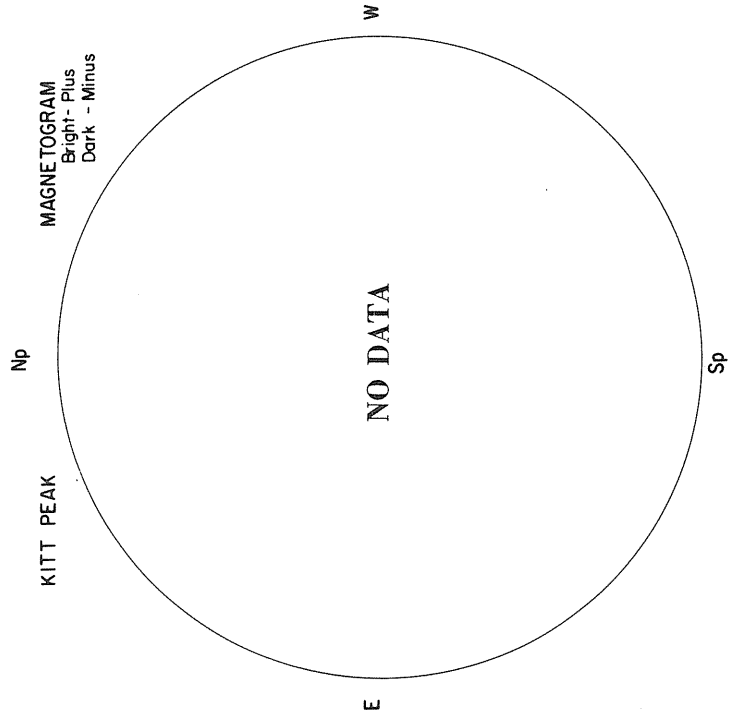
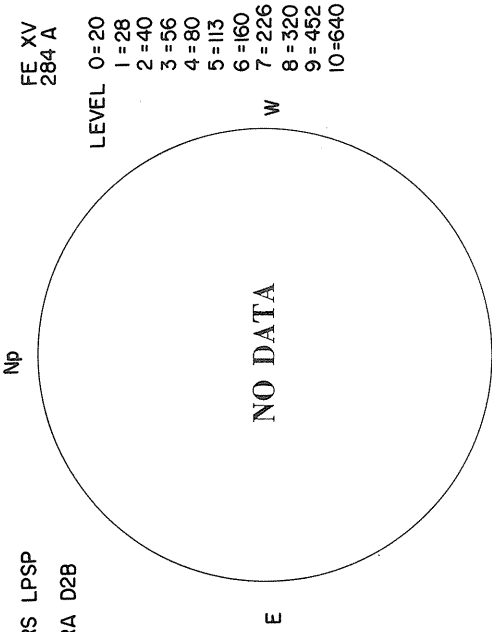
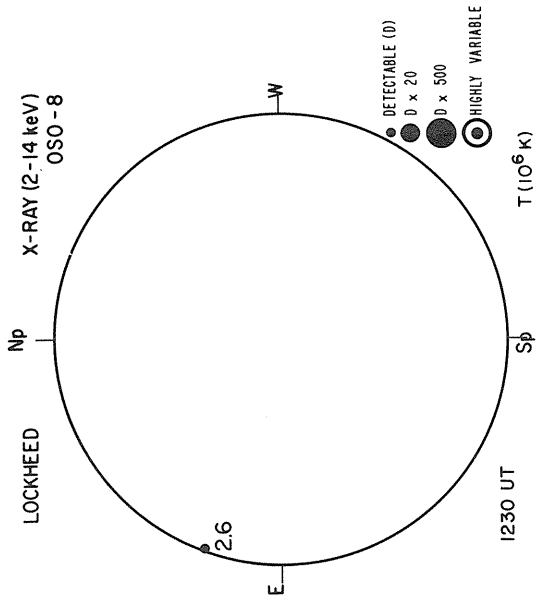
NELC LA POSTA



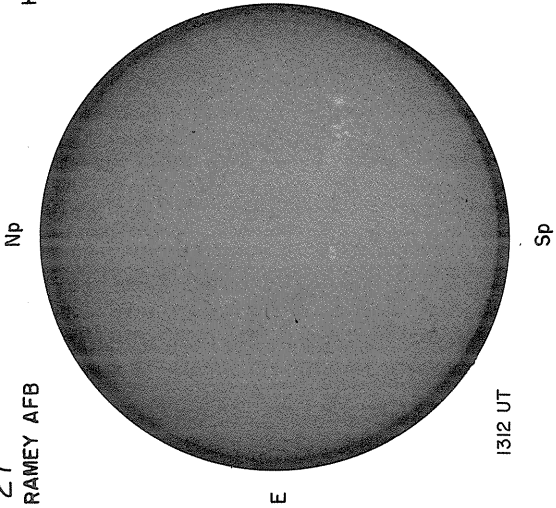
Ant. Temp. Unit 100°K

8.6 MM

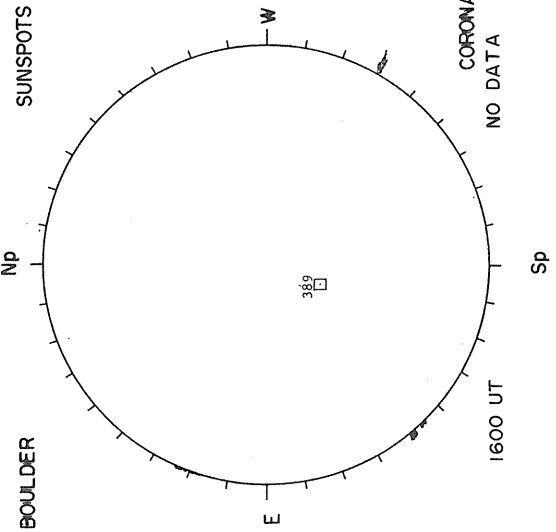
AUGUST 27, 1976 (P = 19.80, B₀ = 7.10, L₀ = 232.78)



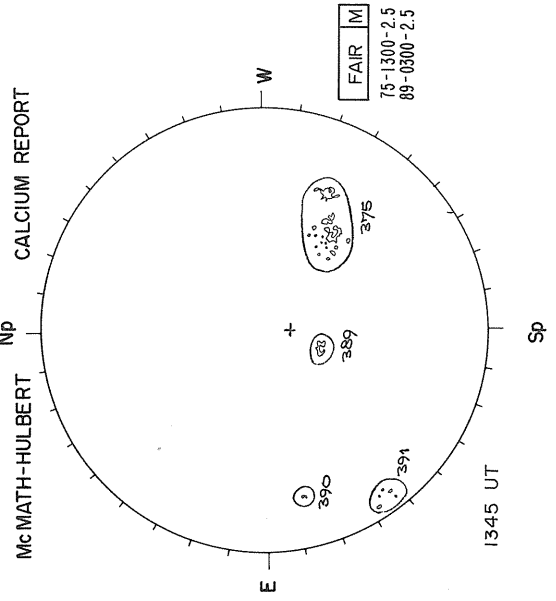
27
RAMEY AFB



H α BOULDER



McMATH-HULBERT



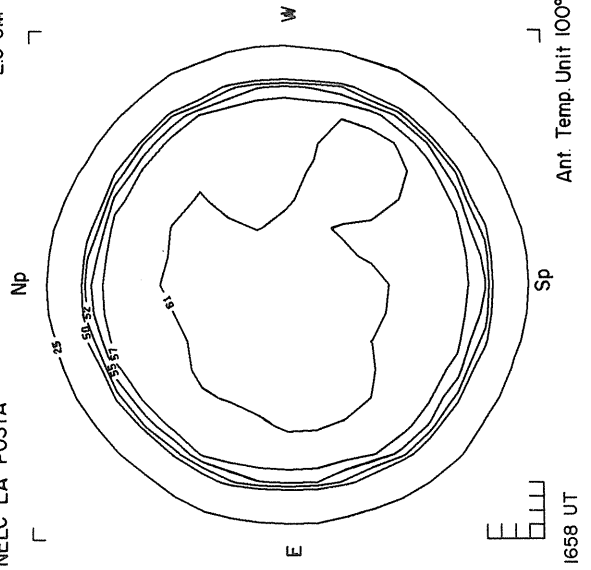
CORONA
NO DATA

NELC LA POSTA

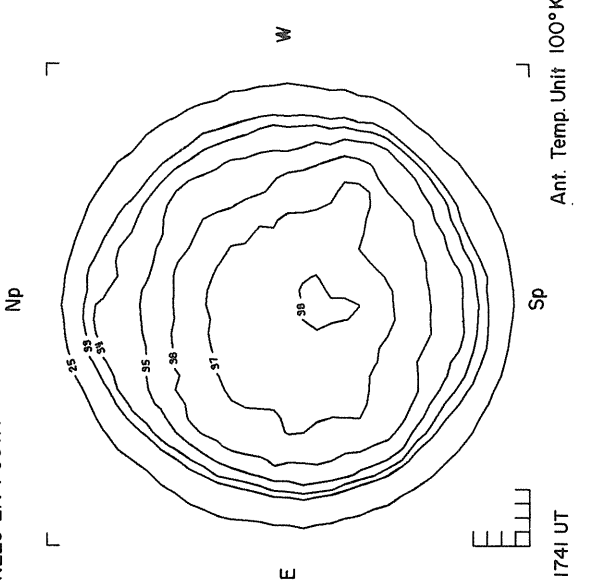
2.0 CM

NELC LA POSTA

8.6 MM

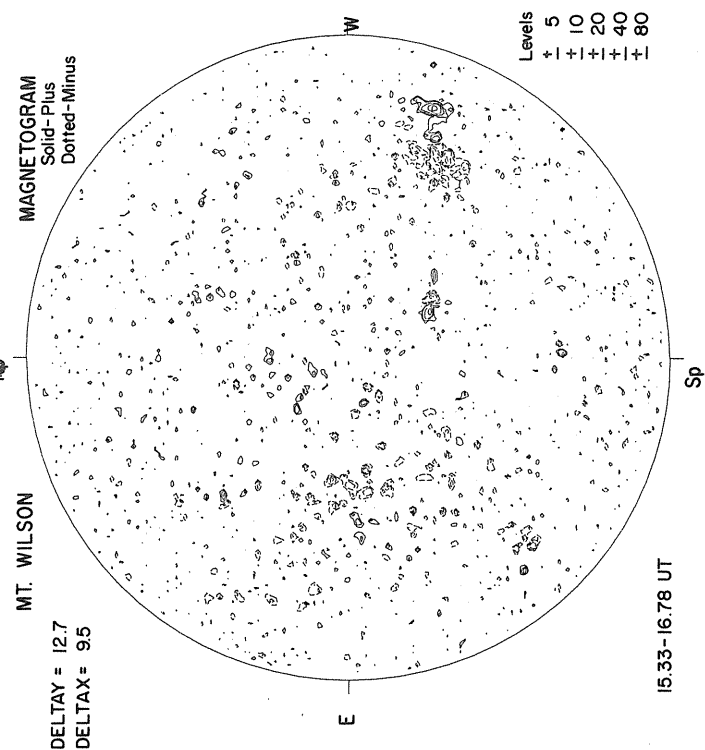
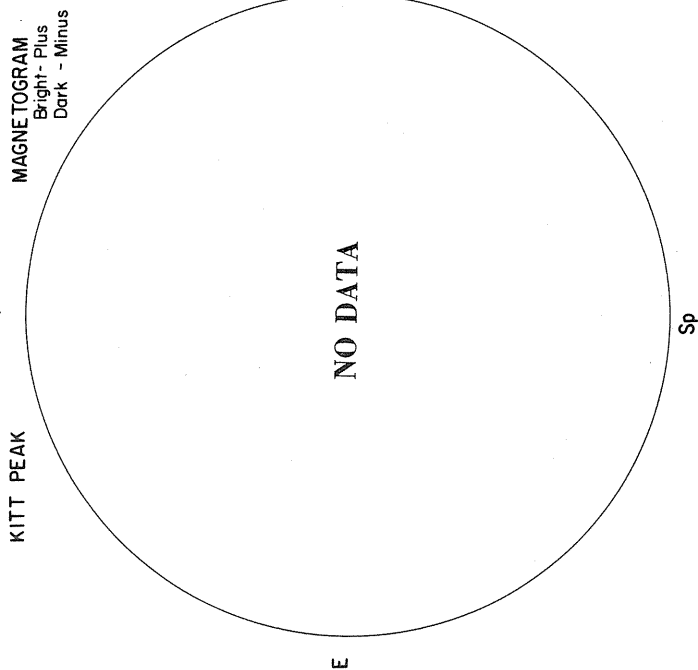
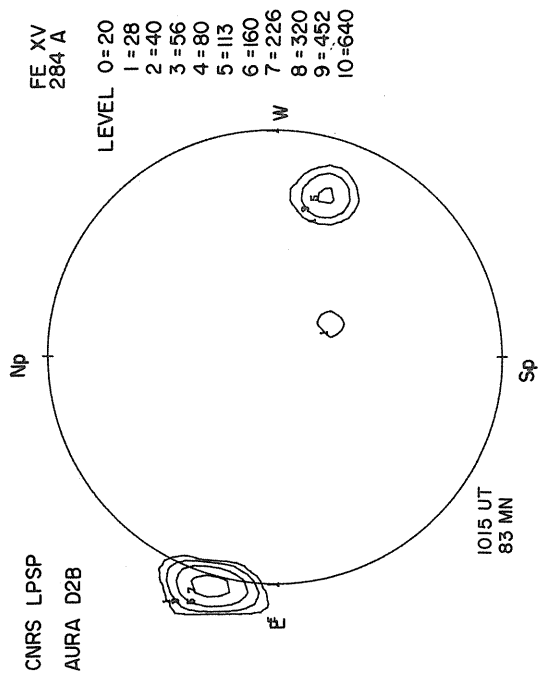
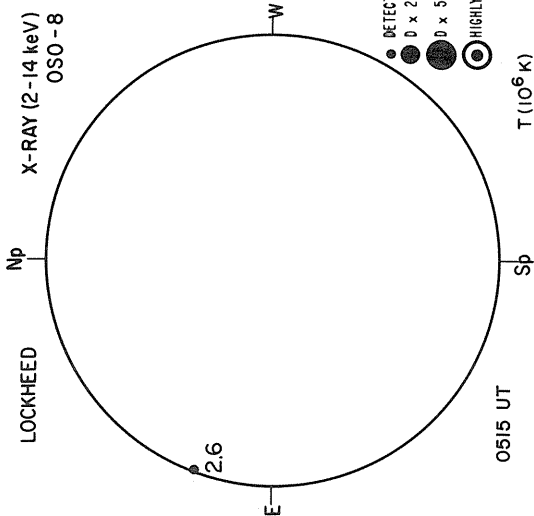


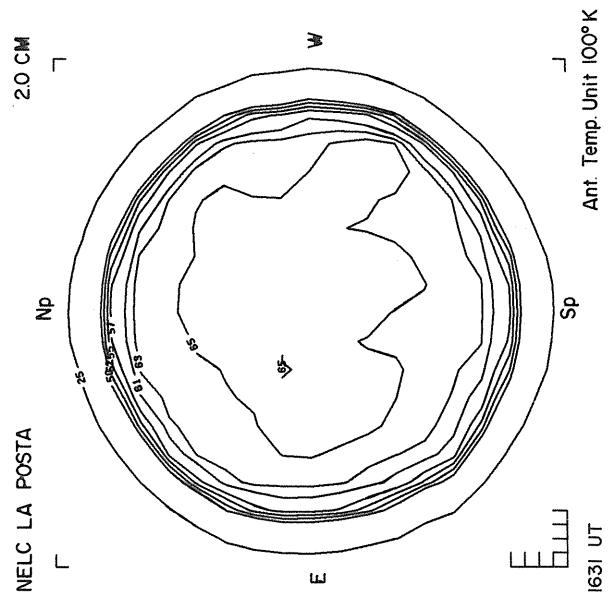
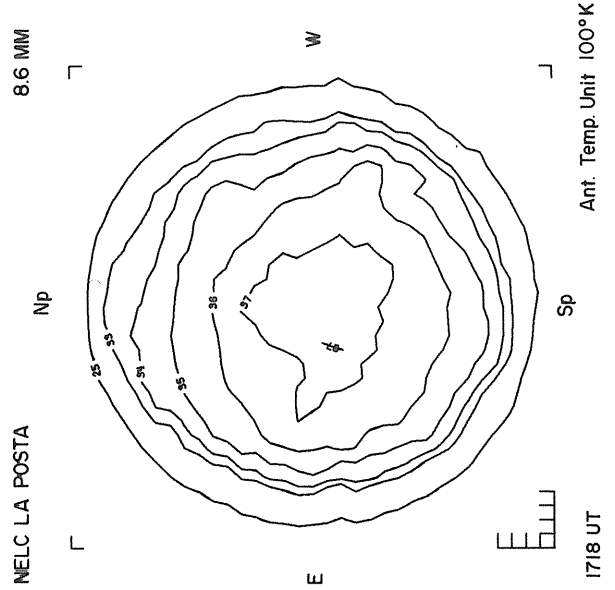
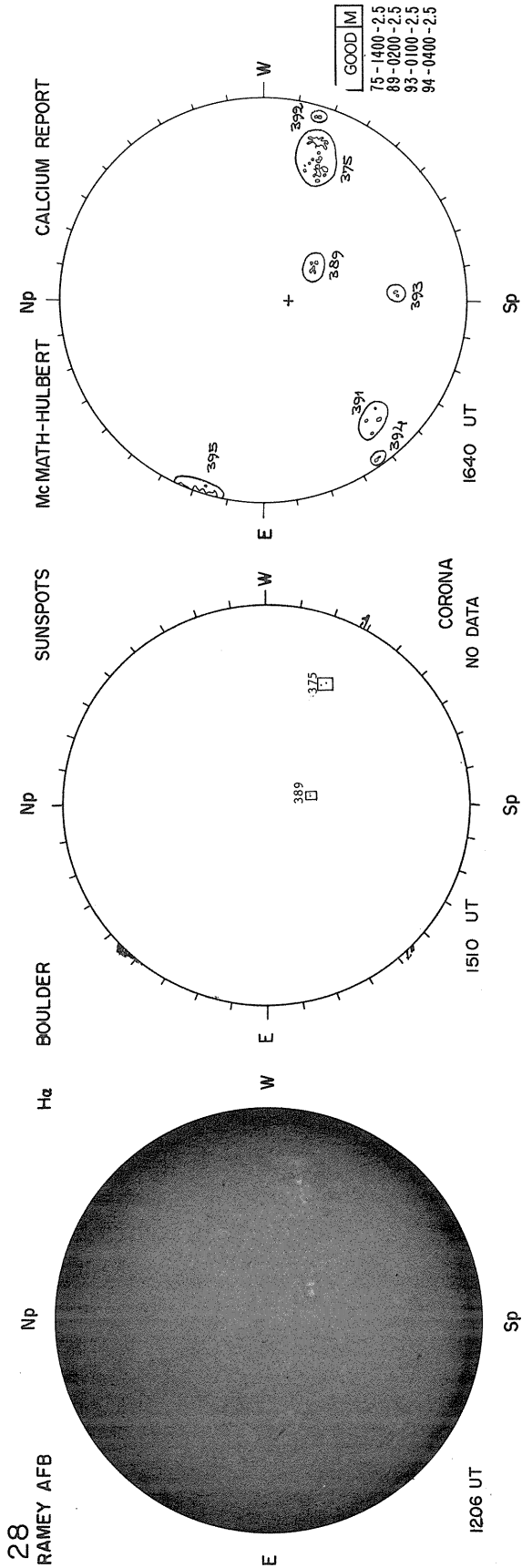
Ant. Temp Unit 100°K



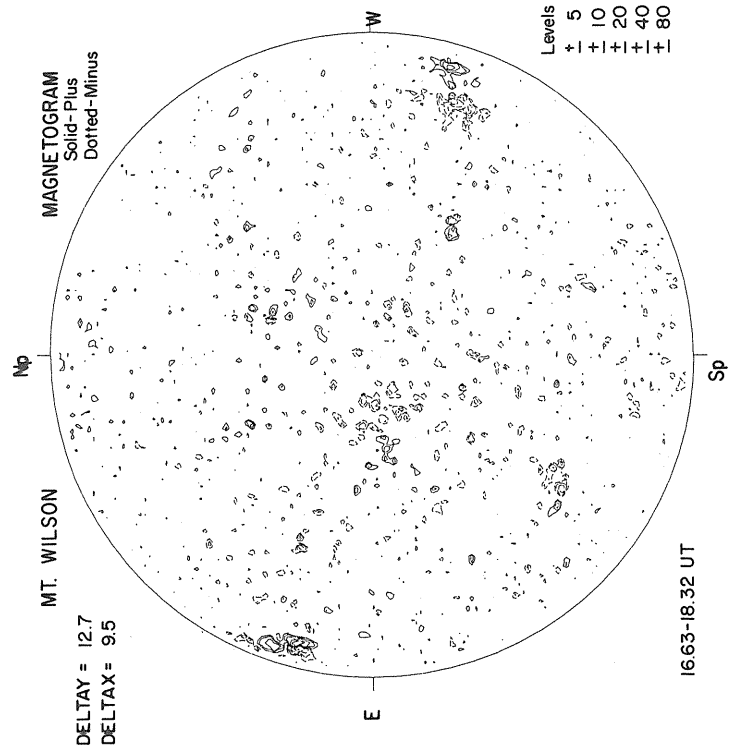
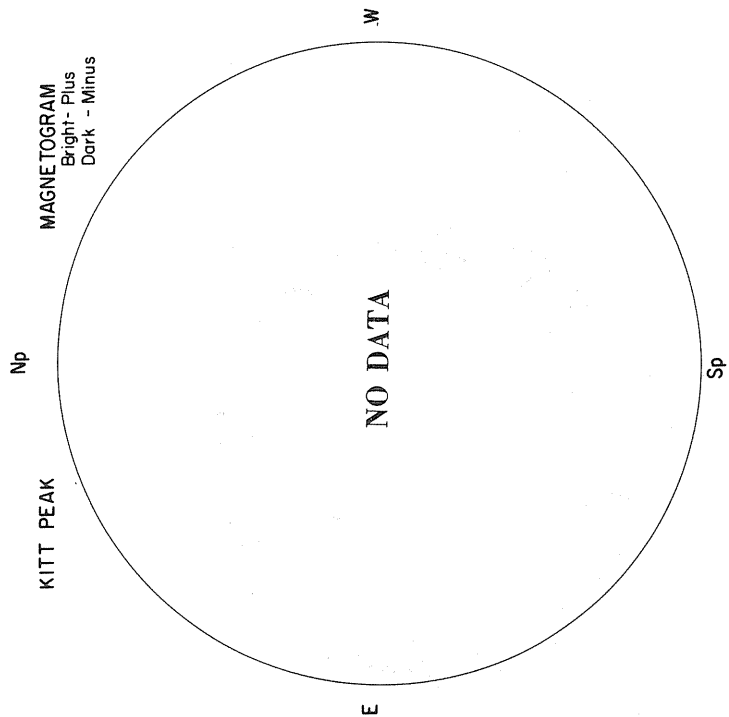
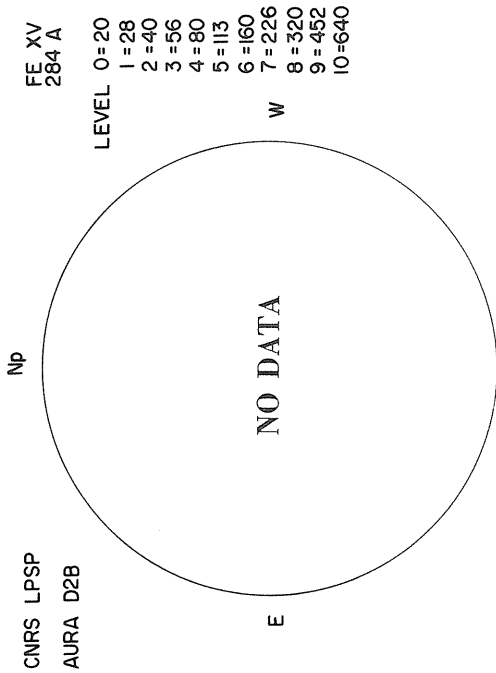
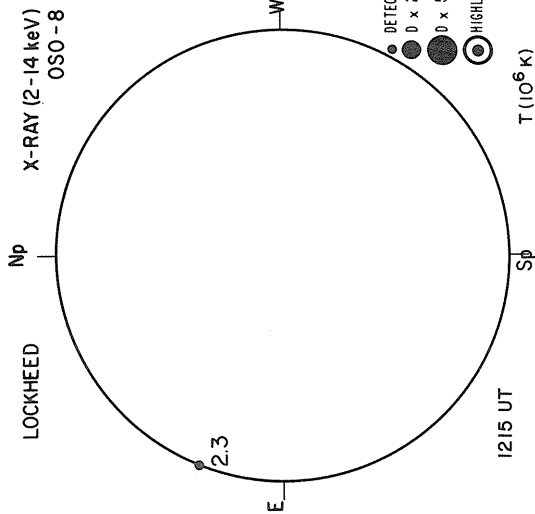
Ant. Temp Unit 100°K

AUGUST 28, 1976 (P = 20.08, $B_0 = 7.13$, $L_0 = 219.57$)

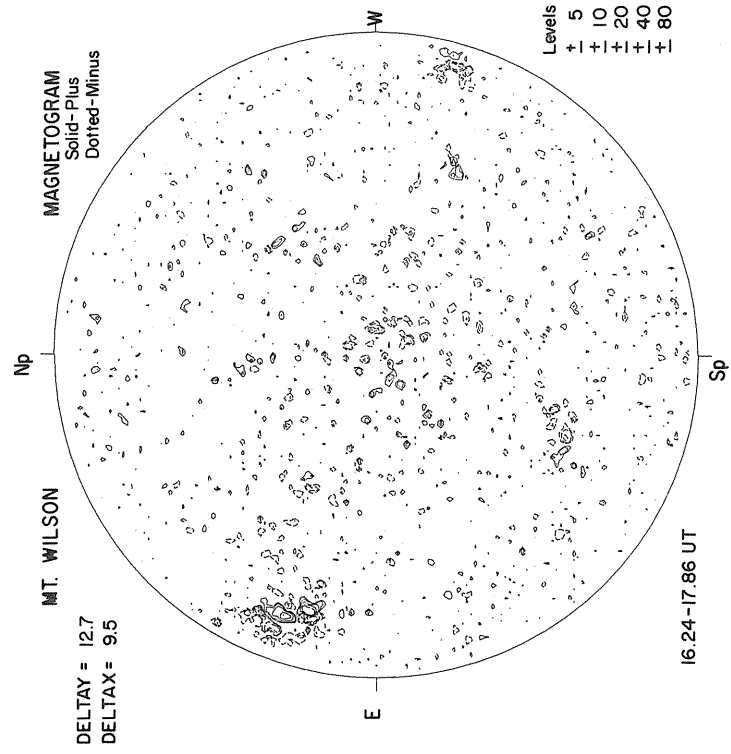
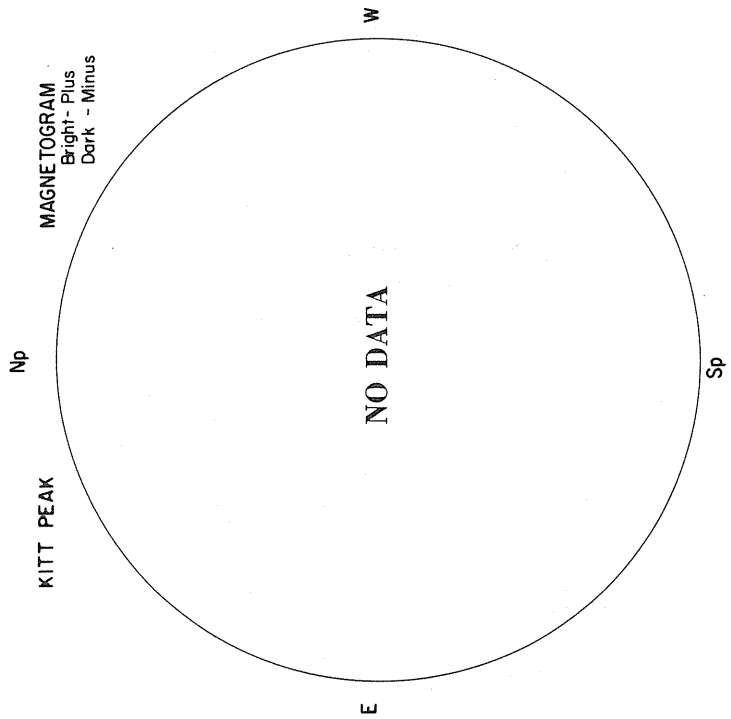
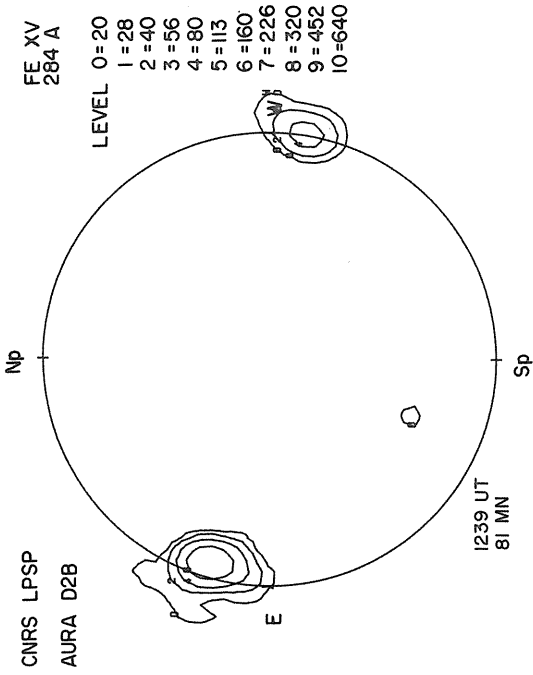
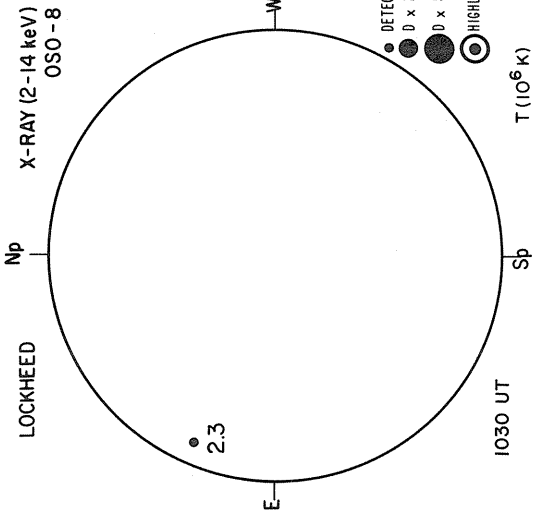




AUGUST 29, 1976 (P = 20.35, B₀ = 7.15, L₀ = 206.36)

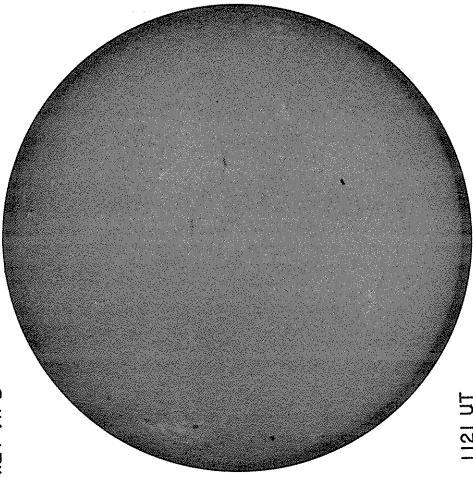


AUGUST 30, 1976 (P=2062, $B_0 = 7.17$, $L_0 = 193.15$)



30
RAMEY AFB

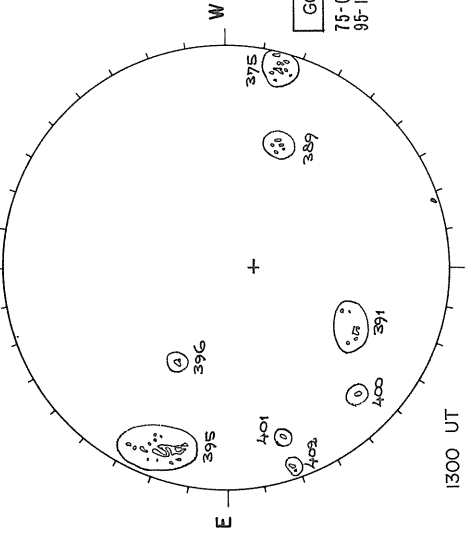
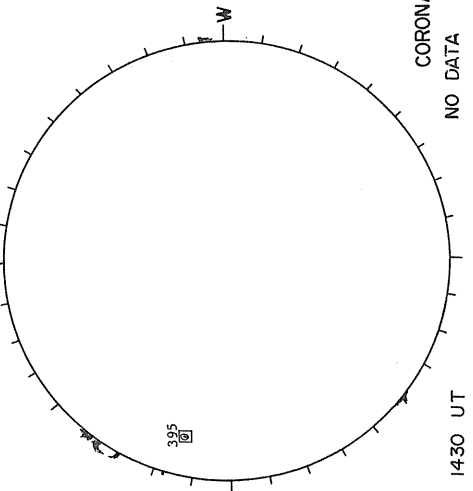
H α BOULDER



Np

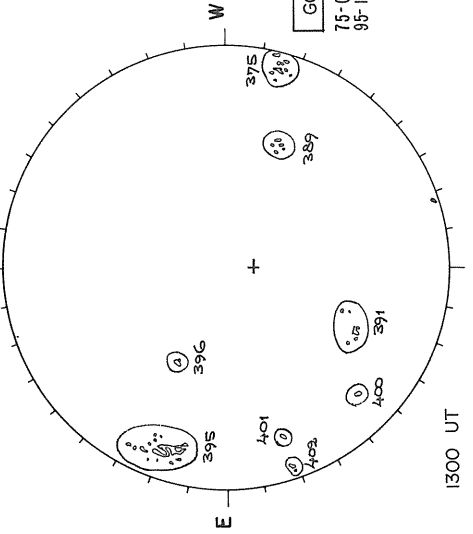
SUNSPOTS

NP CALCIUM REPORT



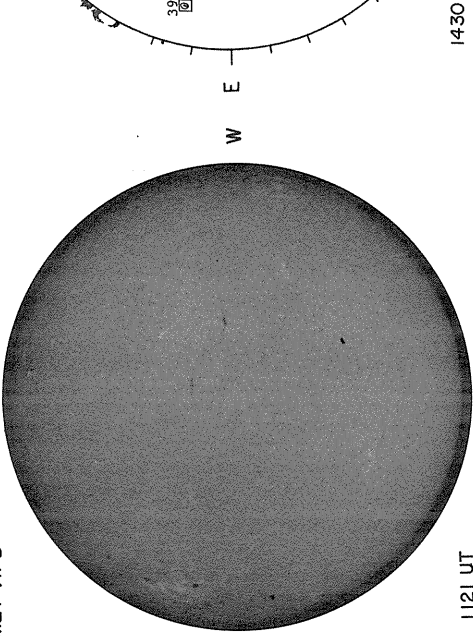
Np

NP CALCIUM REPORT



Np

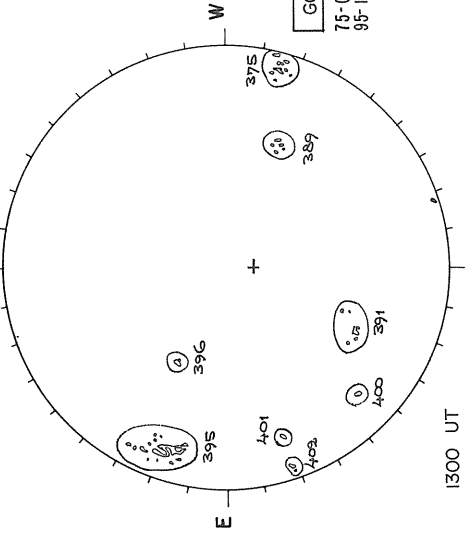
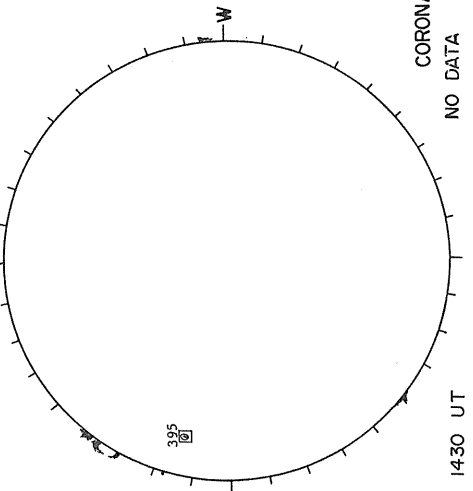
H α BOULDER



Np

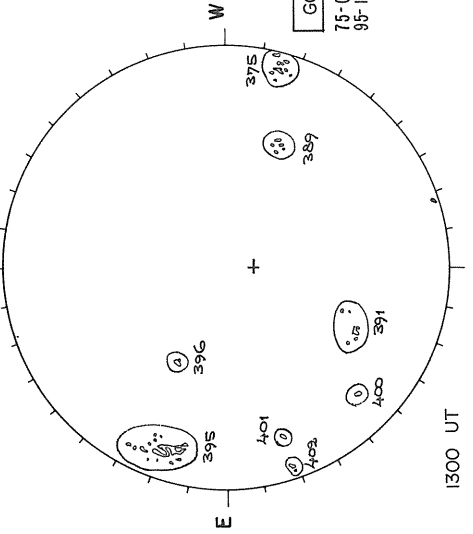
SUNSPOTS

NP CALCIUM REPORT



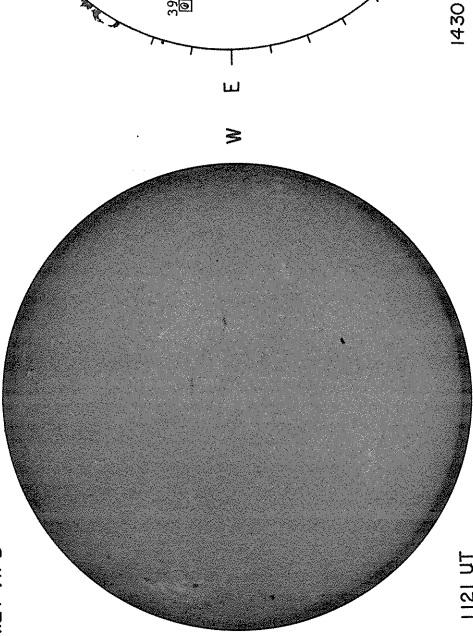
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NP CALCIUM REPORT



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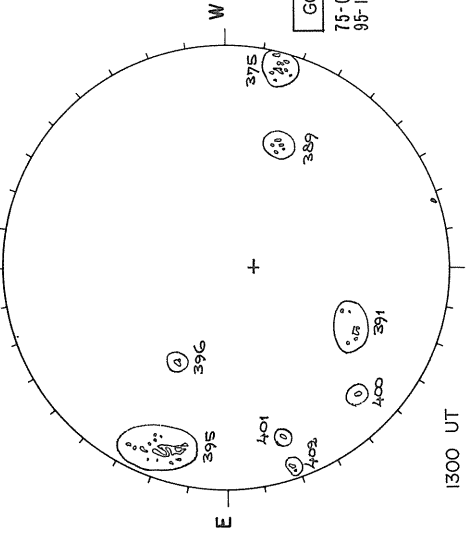
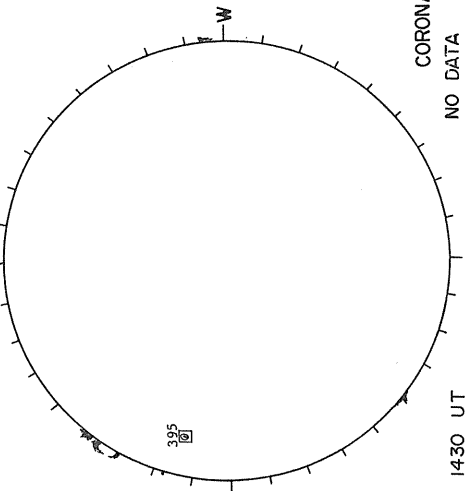
H α BOULDER



Np

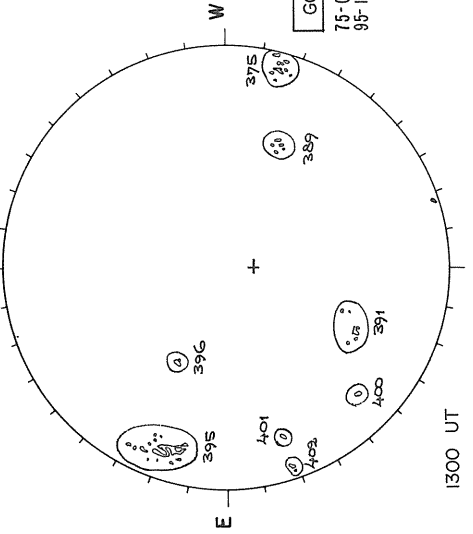
SUNSPOTS

NP CALCIUM REPORT



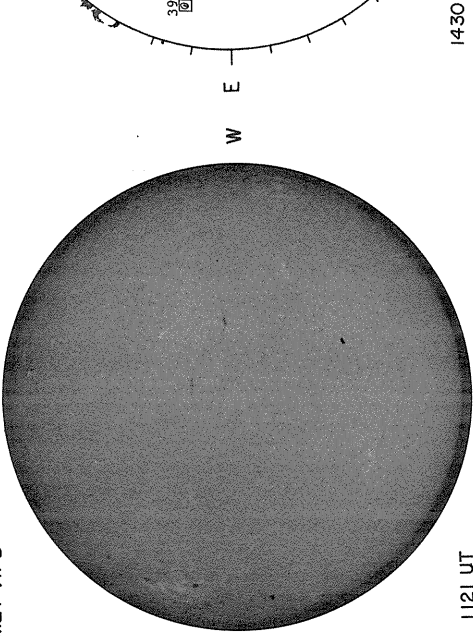
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NP CALCIUM REPORT



Np

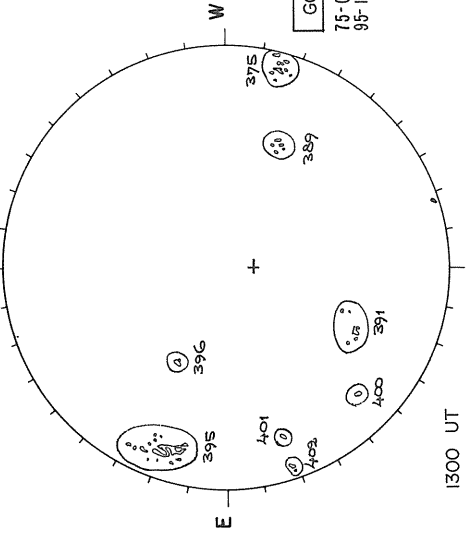
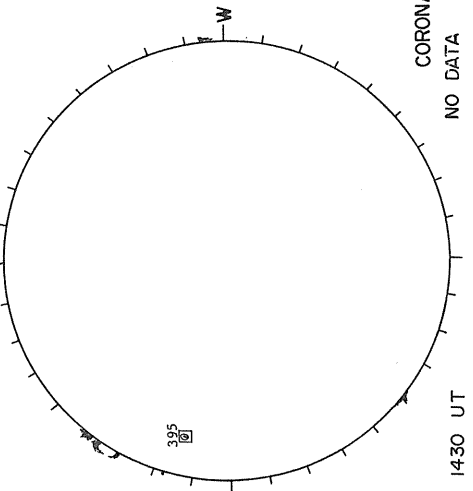
H α BOULDER



Np

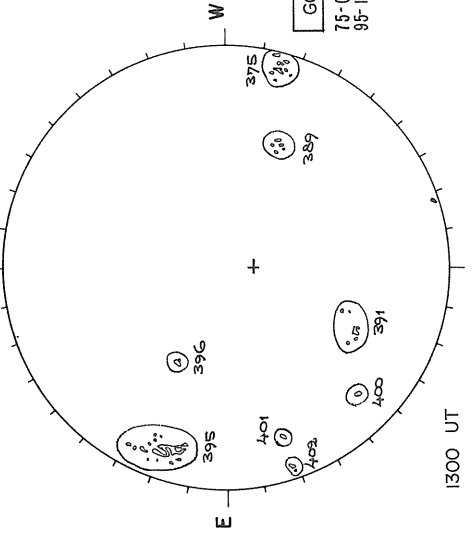
SUNSPOTS

NP CALCIUM REPORT



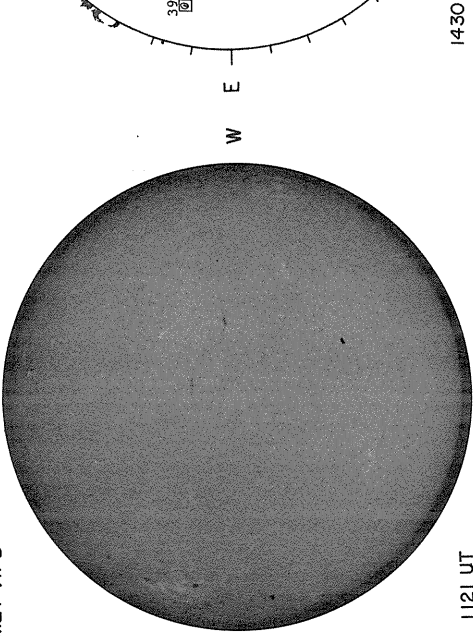
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NP CALCIUM REPORT



Np

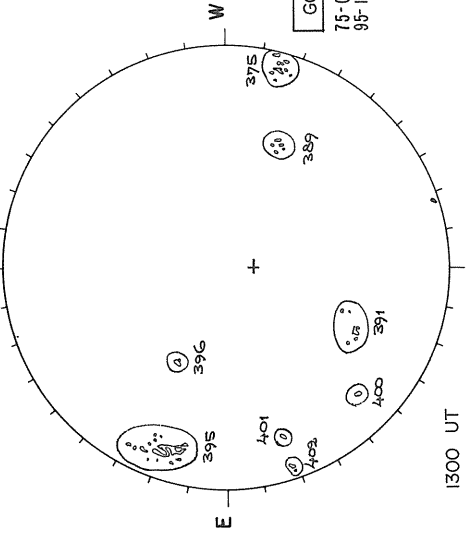
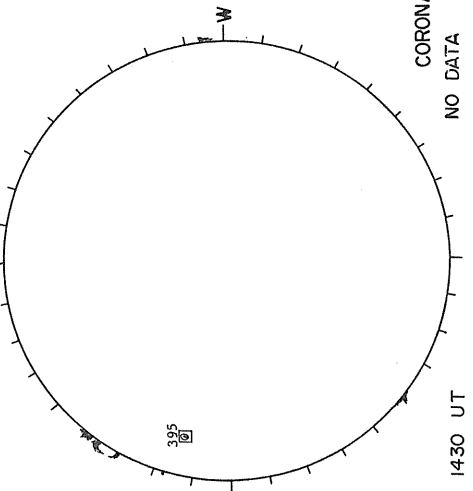
H α BOULDER



Np

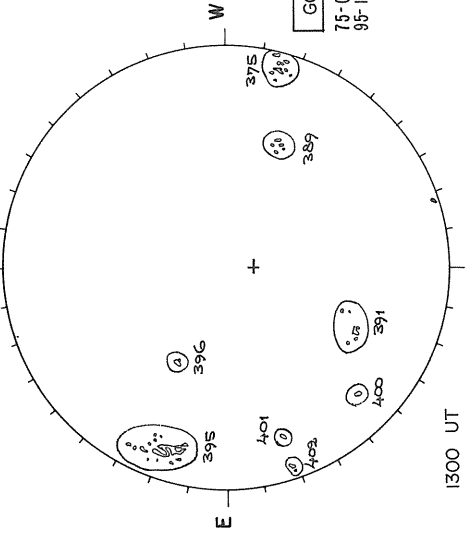
SUNSPOTS

NP CALCIUM REPORT



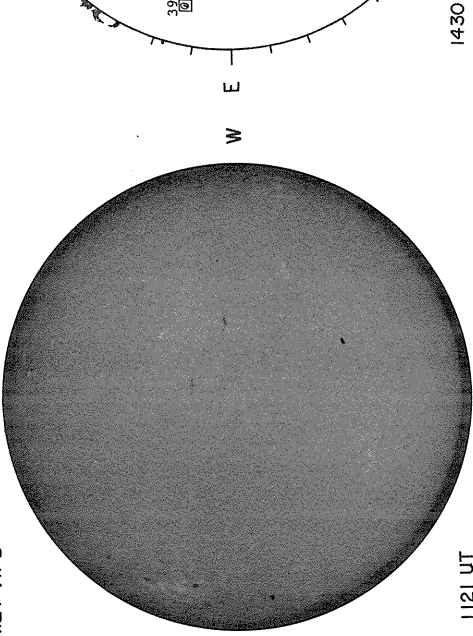
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NP CALCIUM REPORT



Np

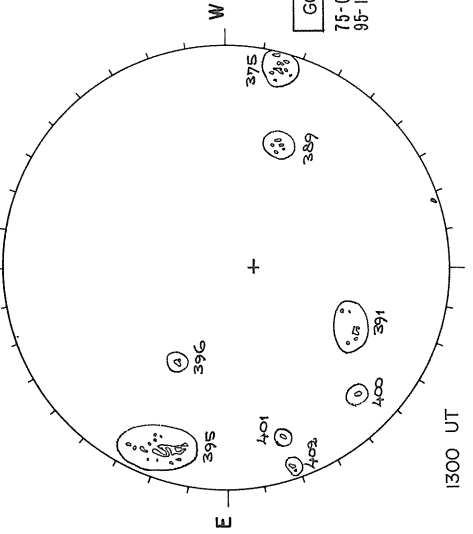
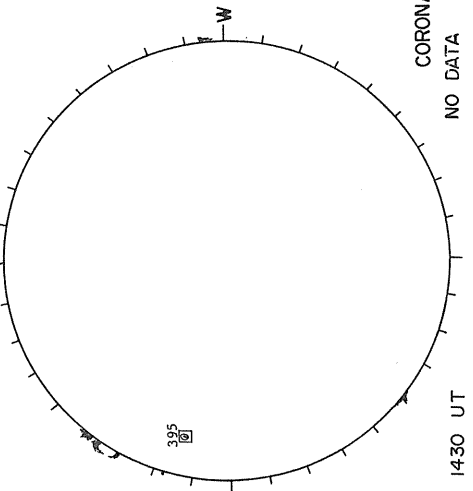
H α BOULDER



Np

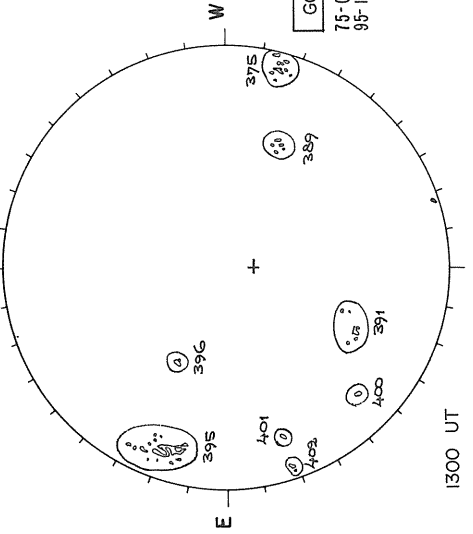
SUNSPOTS

NP CALCIUM REPORT



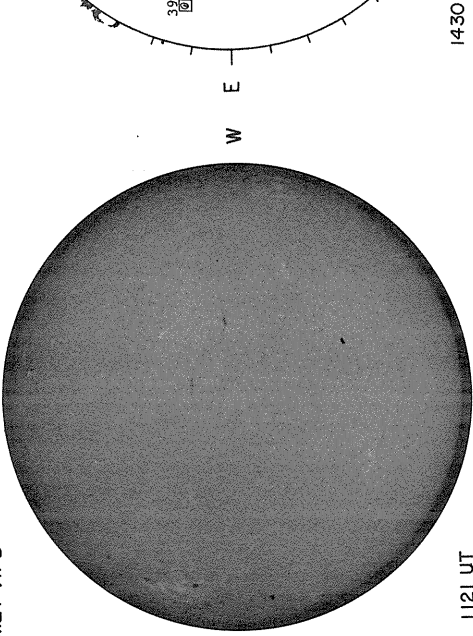
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NP CALCIUM REPORT



Np

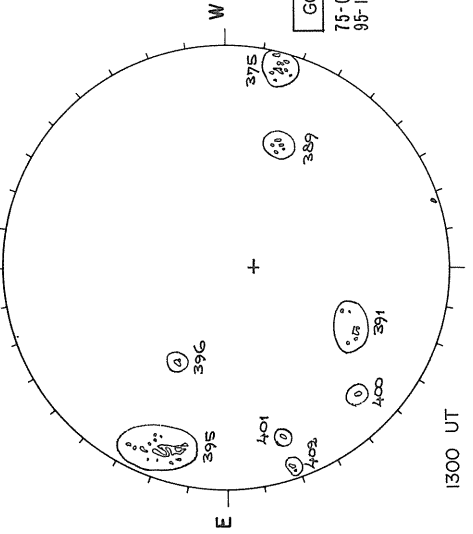
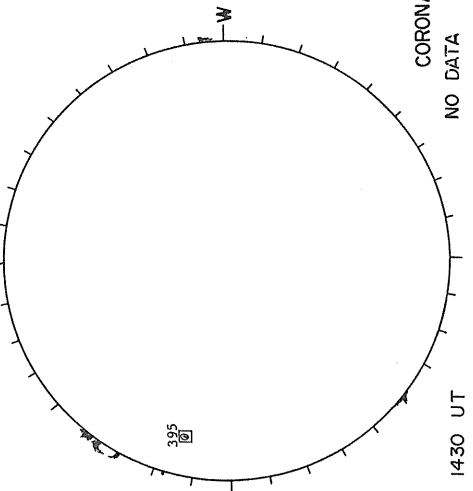
H α BOULDER



Np

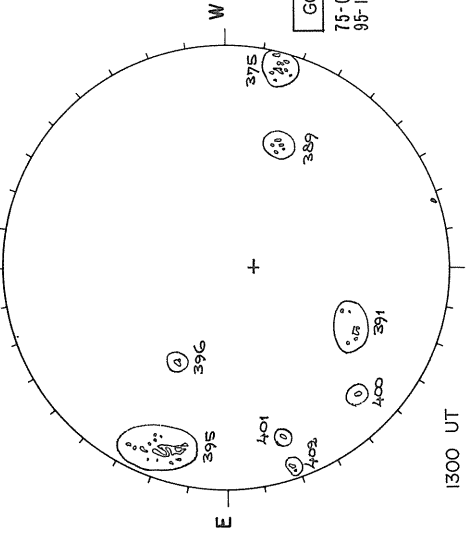
SUNSPOTS

NP CALCIUM REPORT

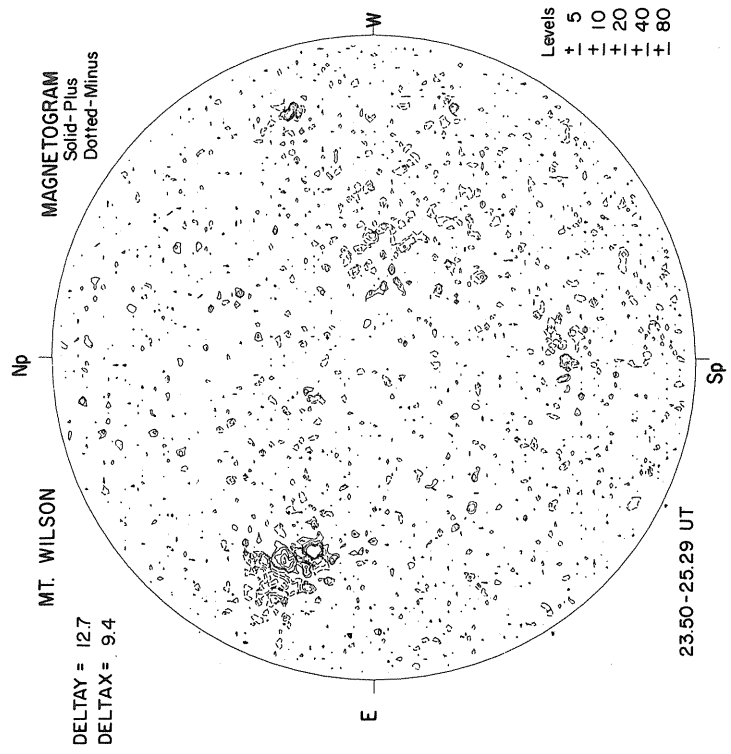
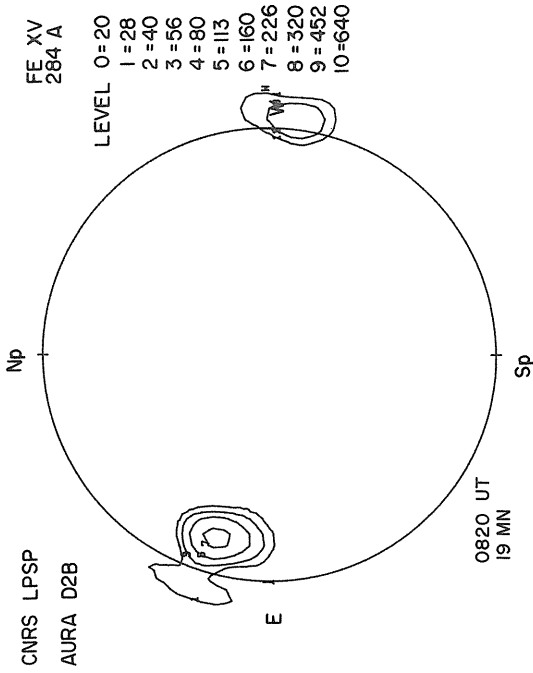
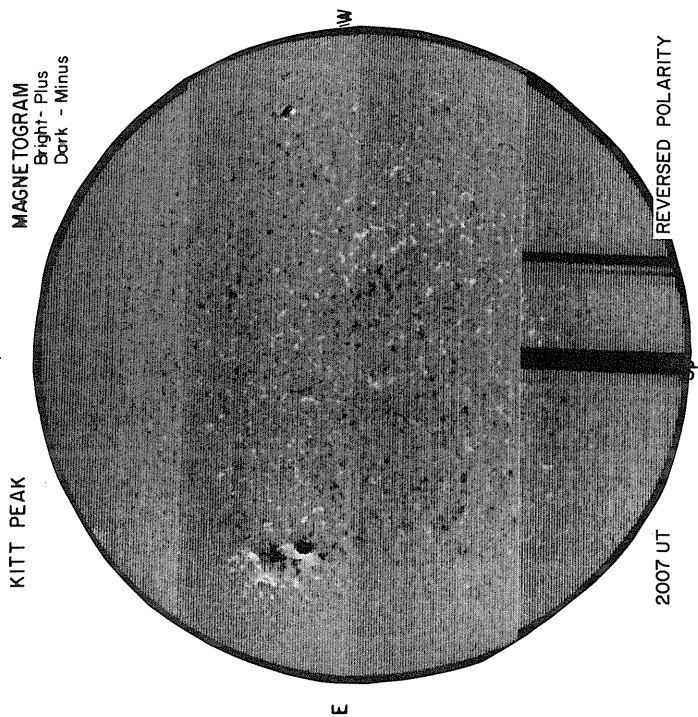
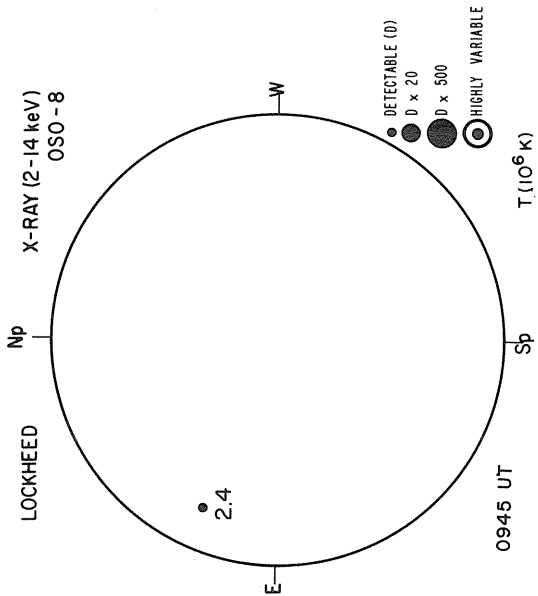


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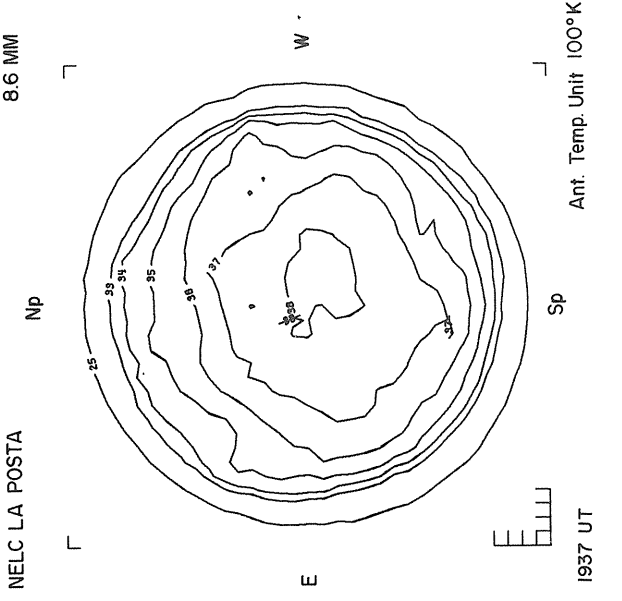
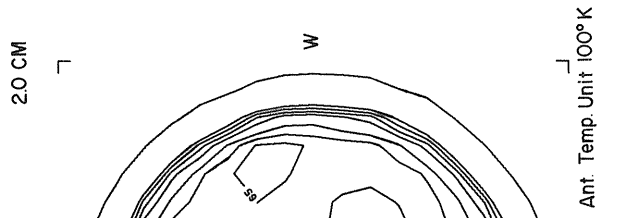
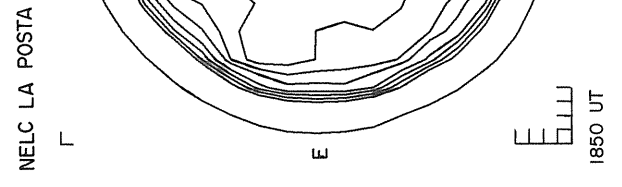
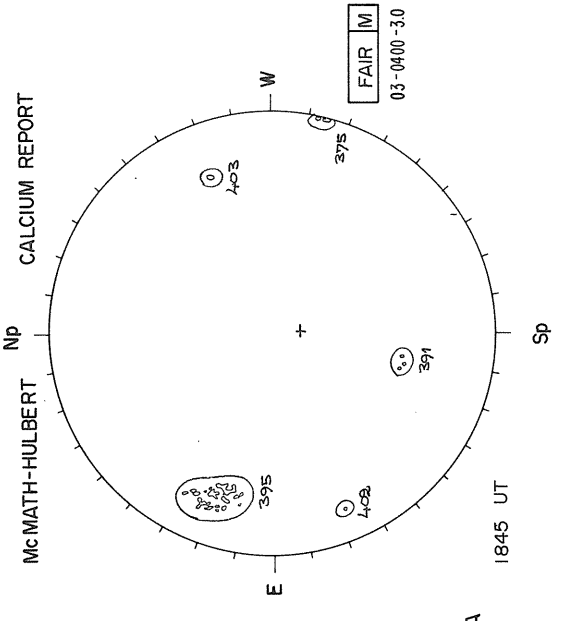
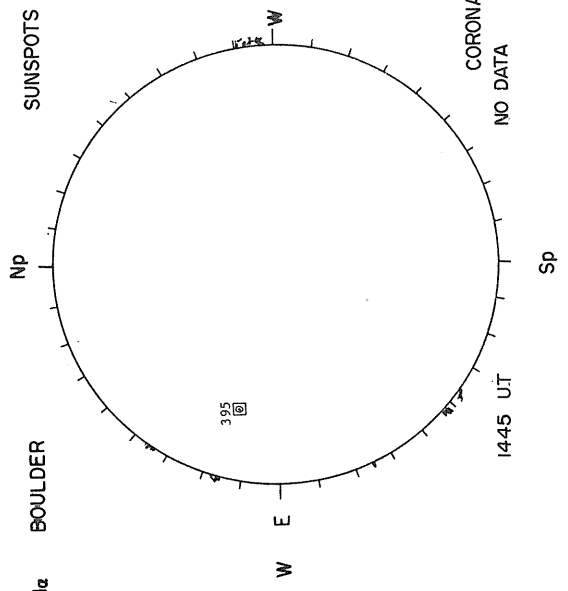
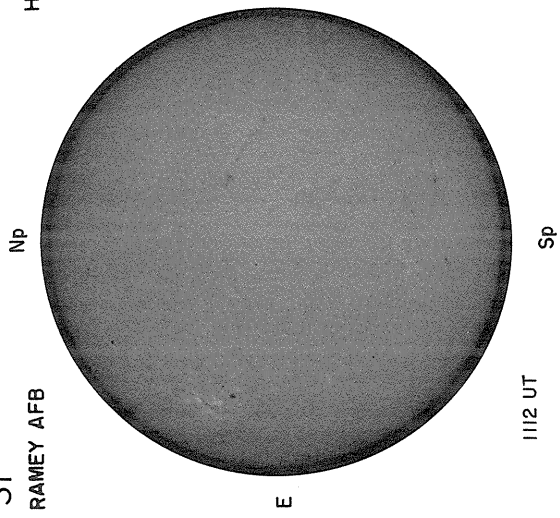
NP CALCIUM REPORT



AUGUST 31, 1976 (P = 2088, $B_0 = 7.18$, $L_0 = 179.94$)



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RAMEY AFB



REGIONS OF SOLAR ACTIVITY

AUGUST 1976

MCMATH REGION 14393 CMP DATE 28.5

				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
76	8	28	14393	S33 W02	212	100	2.5								
76	8	29	14393	S34 W13	213	300	1.0								

MCMATH REGION 14387 CMP DATE 29.3

				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
76	8	24	14387	N03 E63	202	200	1.5								
76	8	25	14387	N03 E51	202	100	1.5								
76	8	26	14387	N03 E36	203	100	1.0								

MCMATH REGION 1439J CMP DATE 31.3

				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
76	8	27	1439J	S05 E49	176	100	1.0								

Note: Calcium spectroheliograms were obtained at the McMath-Hulbert Observatory on every day in August 1976.
No sunspot observations were made at Mt. Wilson Observatory on August 15, 1976.

DAILY CALCIUM PLAGE INDEX

AUGUST 1976

YR	MO	DAY	INDEX	YR	MO	DAY	INDEX	YR	MO	DAY	INDEX
76	8	1	3.8	76	8	11	9.0	76	8	21	5.6
76	8	2	4.9	76	8	12	7.3	76	8	22	5.7
76	8	3	6.1	76	8	13	5.0	76	8	23	5.7
76	8	4	7.6	76	8	14	2.0	76	8	24	6.4
76	8	5	10.2	76	8	15	3.2	76	8	25	4.1
76	8	6	9.6	76	8	16	3.4	76	8	26	3.4
76	8	7	10.2	76	8	17	3.7	76	8	27	3.6
76	8	8	12.0	76	8	18	4.4	76	8	28	3.6
76	8	9	13.4	76	8	19	4.6	76	8	29	3.3
76	8	10	11.6	76	8	20	5.2	76	8	30	4.4
								76	8	31	2.9

* NO OBSERVATIONS

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

AUGUST 1976

AUG 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE
	START UT	END UT		DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND			
				START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT	
01	0448	1846	DURN	0448 D	1846 E	3	0448 D	1846 E	3				IC,DC,N
			DURN	0646.8	0647.2	3	0646.8	0647.2	3				IIIG
	0049	0700	MANI							0647.2	0647.5	2	III
	0715	1023	MANI				1248	1356	2				I
	0940	2359	SGMR				1550	1720	2				IN
	1248	2352	HARV				1600	1602	1				IIIGG
			HARV				1720	2352	1				I
			HARV										
			HARV										
		2142	2400	MANI									
02	0448	1842	DURN	0448 D	1842 E	3	0448 D	1842 E	3				IC,DC,N
			WEIS				0458.0	1818.0	2				IS
			DURN	0658	0748	3	0658	0748	3				DCIM
	0000	1022	MANI							0702.8	0704.3	3	IIIG
	0941	2357	SGMR							0941.0	2357.0	1	CONT
	0458	1819	WEIS				0953.0	1001.3	2				IIIGG
			DURN	0953.5	1002.3	3	0953.5	1002.3	3				DCIM
			WEIS				1018.0	1021.2	2				IIIG
			SGMR							1133.8	1134.3	1	V
			SGMR							1156.5	1157.2	1	V
			DURN	1156.5	1157.5	3	1156.4	1157.3	3				DCIM
			WEIS				1156.6	1157.4	2				IIIGG
			WEIS				1238.4	1238.5	1				IIIG
			SGMR							1238.4	1238.7	1	V
			WEIS				1240.1	1240.2	1				IIIB
	1250	2245	HARV				1250	1500	2				I
			DURN	1321.5	1336.2	3	1321.5	1336.2	3				DCIM
			WEIS				1321.7	1322.4	1				IIIG
			SGMR							1321.7	1325.5	2	IIIG
			WEIS				1324.4	1325.1	1				IIIG
			WEIS				1334.6	1337.2	1				IIIGG
			HARV				1500	2243	1				I
			WEIS				1623.3	1624.4	1				IIIG
			DURN	1807.5	1811.3	3	1807.5	1811.3	3				DCIM
			HARV				1817	1819	1				IIIG
		HARV				1822	1825	1				IIIG	
	2142	2400	MANI						2228.8	2231.0	1	V	
		SGMR										IIIGG	
		HARV				2228	2232	2				IIIGG	
		HARV				2234	2236	1				IIIGG	
03	0437	1420	WEIS				0445.0	1815.0	2				IS
			WEIS				0449.3	0451.7	1				IIIG
	0449	1718	DURN	0449 D	1718 E	3	0449 D	1718 E	3				IC,DC,DCIM
			WEIS				0454.0	1055.0	1				IIIN
			WEIS				0454.7	0456.5	2				IIIG
	0000	1022	MANI							0455.4	0501.2	2	IIIG
			WEIS				0459.5	0502.3	2				IIIG
			WEIS				0706.5	0707.8	2				IIIG
	0942	2356	SGMR							0942.0	2356.0	1	CONT
			SGMR							1343.8	1344.3	1	III
			SGMR							1417.6	1437.2	2	IIIS
	1248	2246	HARV				1507	2246	1				I
			HARV				1520	1521	1				IIIG
			HARV				1523	1524	2				IIIGG
	1555	1818	WEIS				1800.4	1802.3	1				IIIG
			HARV				1800	1802	2				IIIG
			HARV				1831	1832	1				IIIG
			HARV				1955	2003	2				IIIGG
		HARV				2029	2030	1				IIIG	
	2143	2400	MANI						2325.9	2326.3	2	III	
04	0441	1103	WEIS				0455.0	1103.0	3				IS
			WEIS				0457.8	0457.9	1				IIIB
			WEIS				0524.3	0524.6	2				IIIG
	0000	1021	MANI							0524.4	0524.9	2	III
	0605	1839	DURN	0605 D	1839 D	3	0605 D	1839 E	3				IC,DC,DCIM
		WEIS				0634.7	0634.8	1				IIIB	

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SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

AUGUST 1976

AUG 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE	
	START UT	END UT		DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND				
				START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT		
04			WEIS				0847.7	0850.8	1				IIIGG	
			WEIS				0856.7	0900.5	1				IIIGG	
			WEIS				0903.3	0903.4	1				IIIB	
			WEIS				0906.4	0907.0	1				IIIG	
			WEIS				0910.3	0914.4	1				IIIGG	
			DURN	0910	1014	3	0910	1014	3				DCIM	
			WEIS				0920.5	0921.0	2				IIIG	
			WEIS				0924.4	0938.9	3				IIIGG	
		0943	2355	SGMR							0943.0	2355.0	1	CONT
				SGMR							1207.0	1209.0	1	V
		1248	2246	HARV				1250	2246	1				I
		1307	1500	DWIN	1307	1500	1	1307	1500	1				IC,S
				HARV				1321	1322	2				IIIG
				HARV				1330	1332	1				IIIG
				HARV				1336	1337	1				IIIB
				DWIN				1411.1	1411.2	2				IIIG
				HARV				1411	1412	1				IIIG
				SGMR							1525.3	1526.1	2	V
				HARV				1525	1526	2				IIIG
				HARV				1607	1638	1				IIIN
				HARV				1639	1642	1				IIIG
				HARV				1644	1645	2				IIIG
				HARV				1820	1821	1				IIIG
			HARV				1826	1827	1				IIIG	
	2144	2400	MANI											
05	0000	1021	MANI											
	0450	1837	DURN	0450 D	1837 E	3	0450 D	1837 E	3				IC,DC,N	
	0806	1815	WEIS				0806.0	1747.0	2				IS	
			WEIS				0827.8	1614.4	2				IIIN	
	0855	1302	DWIN	0855	1302	2	0855	1302	2				IC,S	
	0944	2354	SGMR							0944.0	2354.0	1	CONT	
	1247	2250	HARV				1247	1936	1				I	
			SGMR							1350.6	1350.8	2	III	
			HARV				1931	1933	2				IIIG	
			HARV				1936	2250	1				IN	
			SGMR							1957.2	1957.4	2	III	
		HARV				1957	1958	2				IIIB		
	2144	2400	MANI						2352.7	2353.7	2	III		
			MANI						2355.5	2356.2	2	III		
06	0000	1021	MANI							0028.2	0028.5	3	III	
			MANI							0410.3	0413.9	3	IIIG	
			MANI							0415.7	0416.4	2	III	
			MANI							0430.2	0432.9	3	IIIG	
			MANI							0433.5	0438.3	3	IIIG	
	0435	1502	WEIS				0435.0	1737.0	3				IIIN	
			WEIS				0444.0	1759.0	3				IS	
	0451	1837	DURN	0451 D	1837 E	3	0451 D	1837 E	3				IC,DC,DCIM	
	0945	2353	MANI							0822.3	0822.4	1	III	
			SGMR							0945.0	2353.0	1	CONT	
			DURN	1011.0	1014	3	1011.0	1014	3				IIIGG	
			SGMR							1132.4	1137.3	2	IIIG	
			DURN	1132.7	1139.0	3	1133.3	1136.7	3				IIIGG	
			HARV				1249	1740	1				I	
			HARV				1426	1454	2				IIIS	
			SGMR							1438.0	1439.0	2	V	
			DURN				1438.1	1438.3					IIIG	
			DURN				1535.5	1538.9	3				IIIGG	
			SGMR							1536.0	1540.1	2	IIIG	
		HARV				1536	1540	2				IIIGG		
		HARV				1542	1544	1				IIIG		
		HARV				1545	1615	1				IIIN		
	1554	1812	WEIS											
			HARV				1604	1605	2				IIIGG	
			SGMR						1736.6	1737.3	2	V		
			HARV				1736	1737	2				IIIG	
			HARV				1740	1759	1				IN	
			HARV				1836	1838	1				IIIG	
			HARV				1952		1				IIIG	

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Aug 76

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

AUGUST 1976

AUG 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE		
	START UT	END UT		DECIMETRIC BAND			METRIC BAND			DEKAMETRIC BAND					
				START UT	END UT	INT	START UT	END UT	INT	START UT	END UT	INT			
08	1643	1810	WEIS HARV HARV HARV HARV				1643.0 1833 1837 1910 1936	1748.0 1834 1838 1936 2229	3 1 1 1 1				IS IIIG IIIG IN I		
	2144	2400	MANI												
09	0455	1829	WEIS	0455	D	1829	E	2	0447.0	1740.0	2				IIIN
	0447	1808	DURN						0455.0	1829.0	2	I,N			
			WEIS						0520.0	1736.0	2				IN
			WEIS	0722.0	0722.1	3			0722.0	0722.7	3				IIIG
			DURN				0722.0	0722.1	3	IIIG					
		0000	1021	MANI								0722.4	0722.9	3	III
		0948	2349	SGMR								0948.0	2315.0	1	CONT
		1248	2246	DURN					1024.3	1024.4	3				III
				HARV					1250	2246	1				I
				HARV					1423		1				IIIG
			HARV					1444	1447	1				IIIG	
10			HARV					1451		1				IIIB	
			HARV					1511		1				IIIB	
			HARV					1728		1				IIIG	
			HARV					1734	1736	1				IIIG	
			HARV					1739		1				IIIG	
			HARV					1745	1747	1				IIIGG	
			HARV					1758		1				IIIG	
			HARV					1801	1948	1					IIIN
		2145	2400	MANI											
		0000	1020	MANI								0358.8	0359.2	2	III
11			MANI								0417.7	0418.0	1	III	
			WEIS					0452.0	1538.0	1				IIIN	
		0457	1829	DURN	0457	D	1829	E	3	0457	D	1829	E	3	IC,DC,N
		0448	1010	WEIS					0506.0	1745.0	2			IN	
		0947	1535	DWIN	0947		1535		0947	1535	1				IC,S
		1019	1808	WEIS											
		1247	2245	HARV					1248	1619	1				I
		0950	2347	SGMR								1323.4	1323.8	1	V
				DWIN					1338.9	1339.3	2				IIIG
				DWIN					1340.2	1341.2	2				IIIG
12			SGMR								1346.5	1955.0	1	CONT	
			DURN	1356.7	1356.9	3								DCIM	
			HARV					1411		2				IIIB	
			HARV					1619	2042	1				IN	
			HARV					2042	2157	1				I	
		2145	2400	MANI											
		0000	1020	MANI											
		0457	1335	DURN	0457	D	1335	E	3	0457	D	1335	E	3	IC,OC,N
		0449	1708	WEIS					0525.0	1742.0	2				IN
		0817	1515	DWIN	0817		1515		0817	1515	1				IC,S
13			WEIS					1047.5	1048.5	1				IIIG	
		1714	1806	WEIS				1405	2146	1				IN	
		1248	2245	HARV							2024.5	2025.2	2	IIIG	
		0950	2346	SGMR				2024	2025	1				IIIG	
		2145	2400	MANI											
		0000	1020	MANI											
		0621	1828	DURN	0621	D	1828	E	2	0621	D	1828	E	2	IC,DC,N
		0903	1140	DWIN	0903		1140		0903	1140	1				IC,S
		0449	1805	WEIS					1312.0	1312.6	3				IIIB
		0951	2345	SGMR								1312.1	1312.7	2	V
	1247	2245	HARV					1312	1313	1				IIIG	
	2145	2400	MANI												
13			MANI												
		0458	1825	DURN	0458	D	1825	E	2	0458	D	1825	E	2	IC,OC,N
		0451	1040	WEIS					0756.6	0756.8	1				IIIG
		0940	1505	DWIN	0940		1505		0940	1505	1				IS,W
		1058	1803	WEIS											
			DWIN					1102.8	1103.1	1				IIIG	

SOLAR RADIO EMISSION SPECTRAL OBSERVATIONS

AUGUST 1976

AUG 1976	TIMES OF OBSERVATION		STATION	EVENTS									SPECTRAL TYPE				
				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			
30	0513	1800	DURN	0513	D	1800	E	2	0513	D	1800	E	2				IC,DC,N
	0557	1012	MANI														
	0714	1733	WEIS						0744.6		1625.0		2				INDC
	0813	1454	DWIN	0813		1454		1	0813		1454		1				IC,S
	1010	2316	SGMR														
	1304	2245	HARV														
	2146	2400	MANI														
31	0000	0304	MANI														
	0340	0749	MANI														
	0514	1800	DURN	0514	D	1800	E	2	0514	D	1800	E	2				IC,DC,N'
	0514	0726	WEIS						0546.0		1521.0		1				IN
	0737	1521	WEIS														
	0840	1012	MANI														
	0900	0935	DWIN	0900		0935		1	0900		0935		1				IC,S
	1015	1438	DWIN	1015		1438		1	1015		1438		1				IC,S
	1304	2245	HARV														
	1011	2315	SGMR											1445.3	1445.5	1	III
	2146	2400	MANI														

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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> RS = Reverse slope burst DP = Drifting pairs DC = Drifting Chains H = Herringbone W = Weak P = Pulsations CONT = Continuum UNCLF = Unclassified activity |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

98
Aug 76

Selected Solar Events observed on
the Radioheliograph at Culgoora were
not received at time of publication.

COSMIC RAY INDICES
(Neutron Monitors)
AUGUST 1976

AUG. 1976	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		7560.2	7110.0	11730.1	9101.6	6388.7	4261.3	3665.4
2		7550.5(6)	7111.2	11767.7	9100.8	6380.3	4252.9	3662.2
3		-- (0)	7105.4	11788.8(23)	9124.2	6385.9	4251.4(32)	3671.5
4		-- (0)	7111.0	11714.5(8)	9151.0	6397.2	-- (0)	3668.4
5		-- (0)	7105.9	11707.2	9149.4	6370.4	-- (0)	3663.8
6		-- (0)	7115.0	11728.2	9164.6	6379.0	-- (0)	3668.7
7		-- (0)	7124.8	11790.8	9193.2	6386.5	-- (0)	3669.3
8		-- (0)	7122.5	11827.8	9197.9	6389.3	-- (0)	3676.5
9		7610.0(21)	7113.9	11777.5	9180.2	6408.7	-- (0)	3672.8
10		7625.1	7142.7	11802.8	9214.8	6431.0	-- (0)	3676.5
11		7635.5	7166.5	11901.9	9254.6	6458.7	-- (0)	3681.5
12		7650.0	7164.0	11886.1	9274.5	6464.0	-- (0)	3680.1
13		7664.0	7157.0	11857.0	9240.9	6443.0	-- (0)	3685.8
14		7613.1	7157.4	11875.7	9244.0	6426.2	-- (0)	3671.8
15		7556.9	7081.0	11759.9	9157.7	6389.4	-- (0)	3654.3
16	no observations	7531.9	7095.9	11710.7	9155.9	6378.5	4279.3(38)	3657.9
17		7521.8	7045.6	11642.4	9077.6	6353.1	4242.5	3654.2
18		7488.8	7028.6	11669.5	9032.0	6331.5	4218.8	3650.3
19		7500.9	7012.2	11691.8	9019.8	6320.2	4218.1	3652.0
20		7524.7	7016.0	11712.8	9034.7(21)	6330.3	4229.3	3655.7
21		7528.4	7028.8	11733.2	9035.0(21)	6333.5	4233.2	3657.8
22		7562.0	7052.8	11740.7	-- (0)	6354.3	4241.1	3667.9
23		7565.0	7080.5	11744.3	9083.2(15)	6377.2	4269.0	3674.9
24		7510.5	7032.8	11649.4	9028.6	6339.8	4243.9	3659.0
25		7505.1	7034.1	11662.8	9046.3	6341.3	4244.8	3660.0
26		7518.0	7052.1	11737.7	9081.9(22)	6363.9	4263.3	3663.9
27		7502.0	7049.1	11724.6	9089.1(7)	6373.7	4261.2	3668.8
28		7501.6	7042.0	11726.7	9069.4	6344.7	4254.2	3666.2
29		7502.2	7076.4	11736.5	9057.5	6360.9	4242.2	3669.3
30		7520.2	7110.1	11763.8	9089.1	6387.0	4256.8	3660.1
31		7517.3	7113.4	11792.3	9129.7	6390.8	4277.1	3659.7
MEAN		7550.6	7089.0	11753.4	9126.0	6380.0	4248.9	3666.0

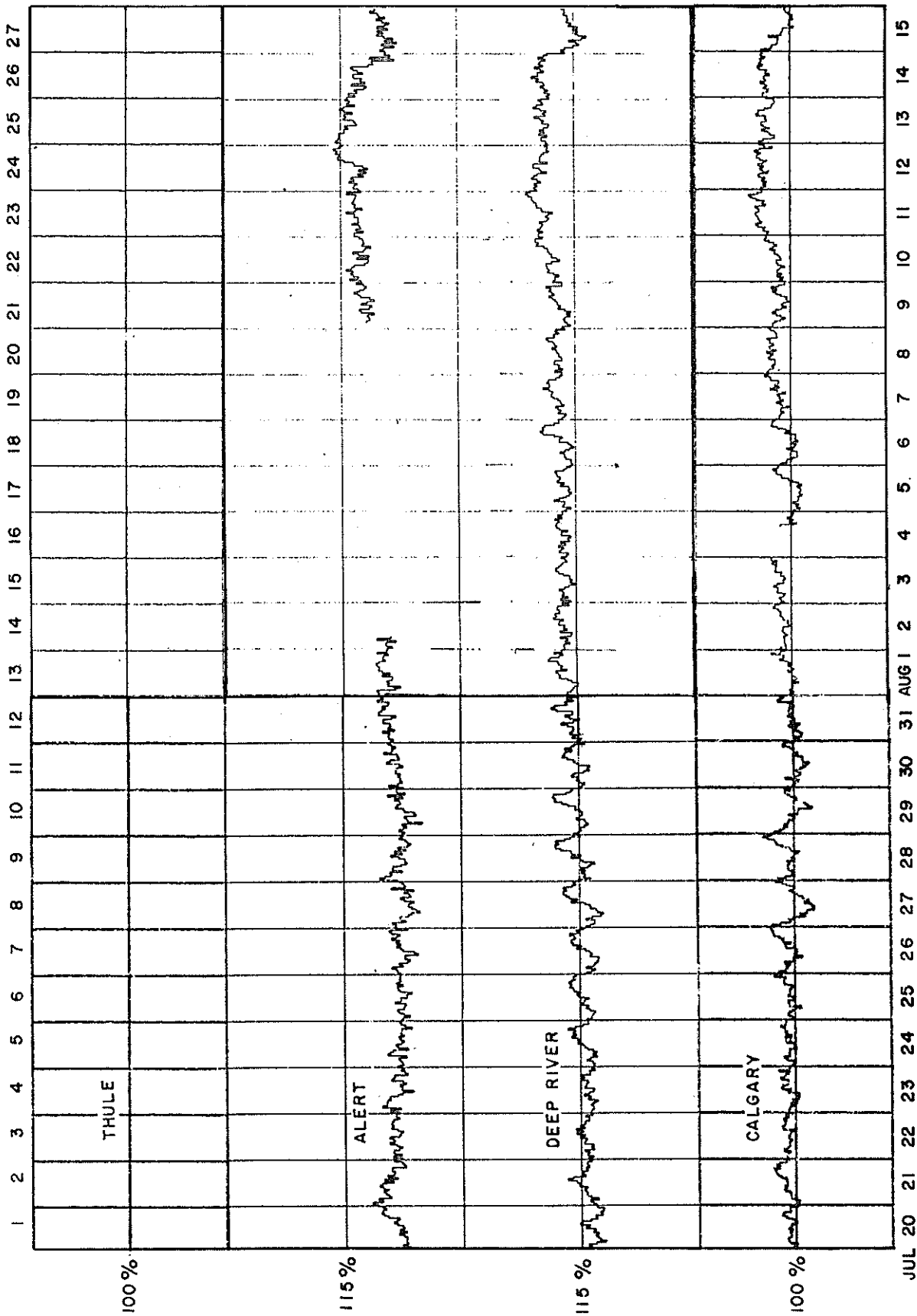
() Number of hours for which data are available if less than 24. Number of Section Hours at Climax if sum of both sections is less than 40 hours.

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

* Due to the closing of the Geopole Station the Thule neutron monitor operations were temporarily suspended at the end of May 1976. It is expected that observations will be resumed in the not too distant future.

COSMIC RAY INDICES (Neutron Monitors)

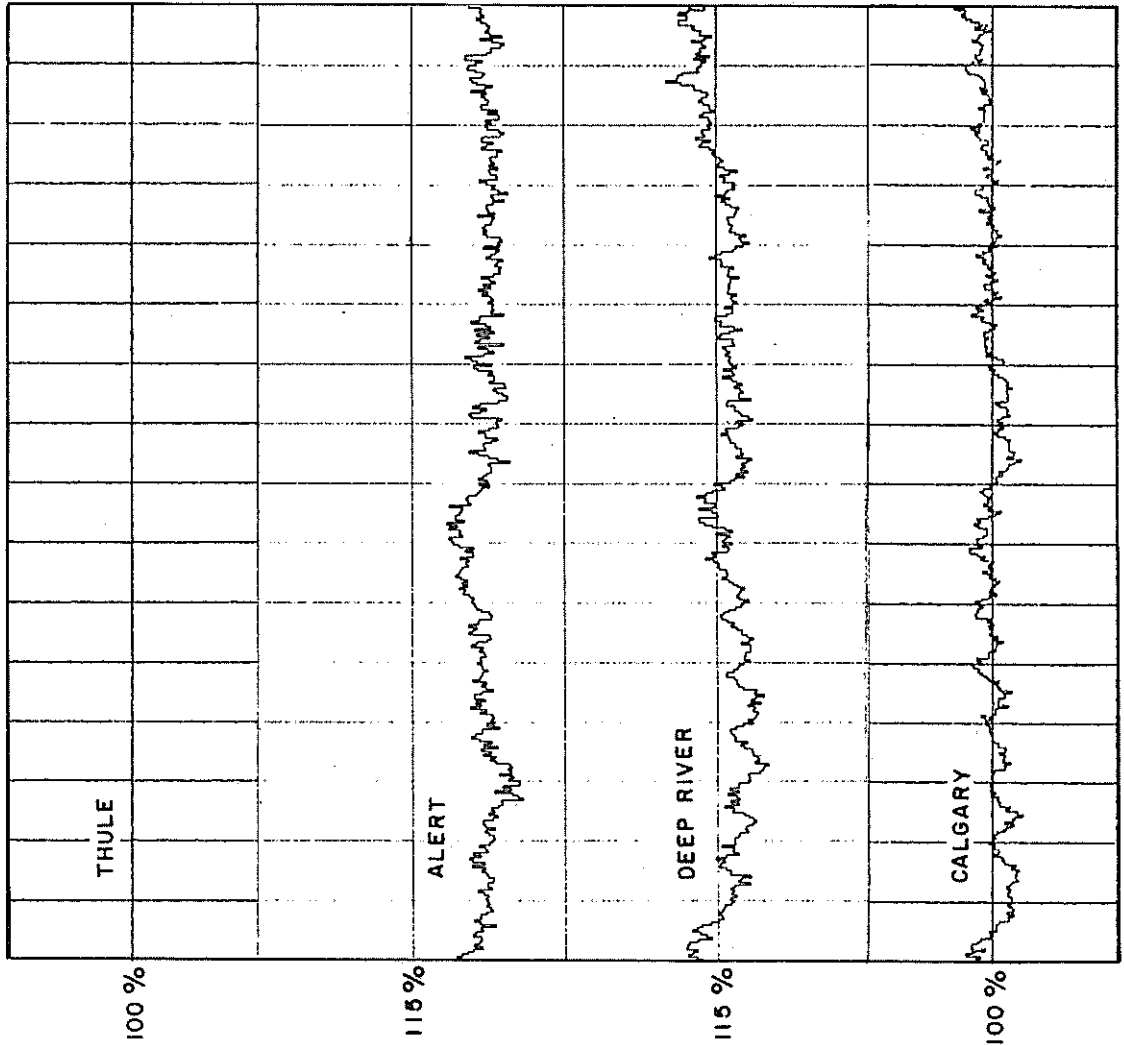
Bartels Rotation 1955 (July-August 1976)



COSMIC RAY INDICES
(Neutron Monitors)

Bartels Rotation 1956 (August 1976)

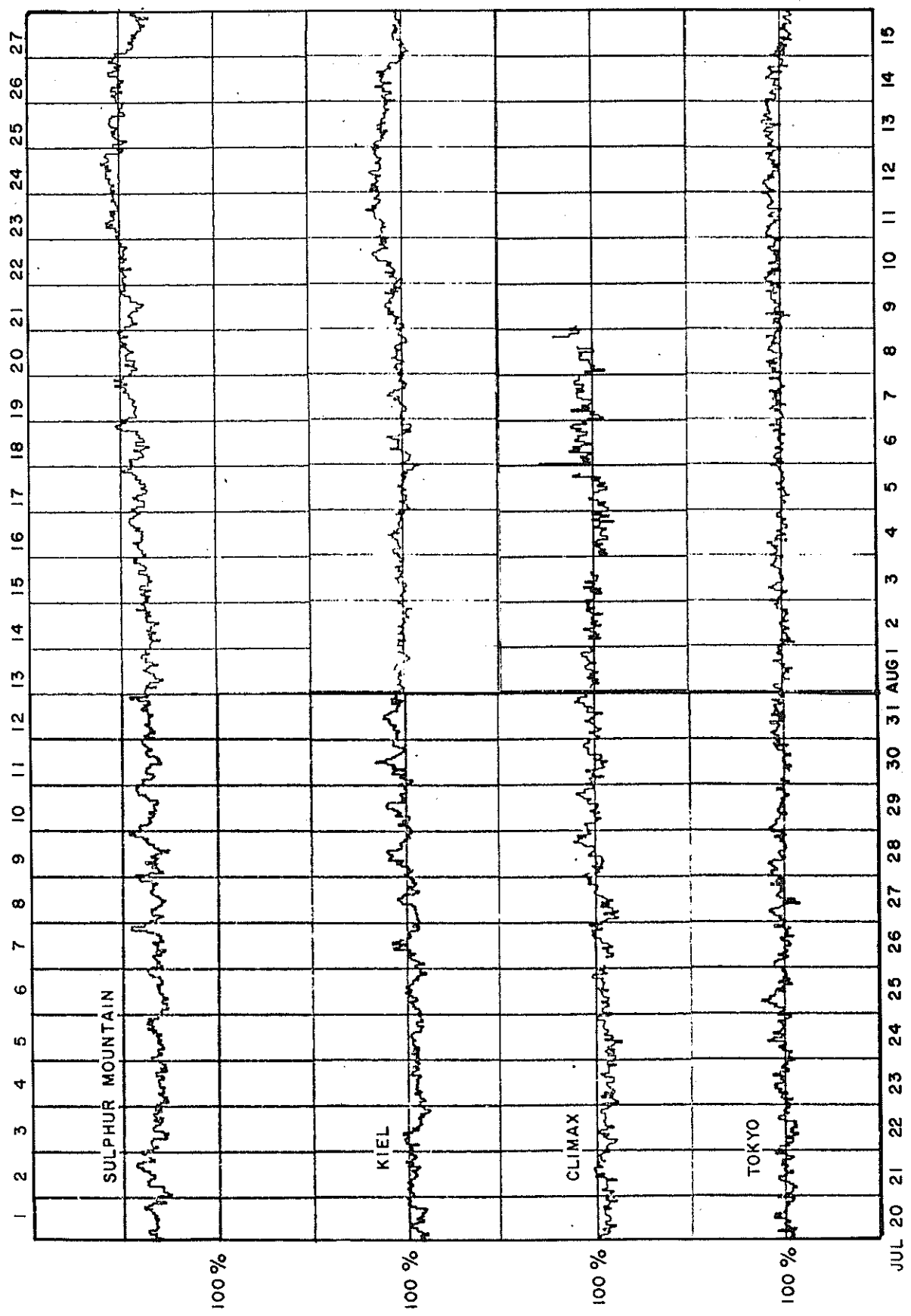
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AUG 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

COSMIC RAY INDICES (Neutron Monitors)

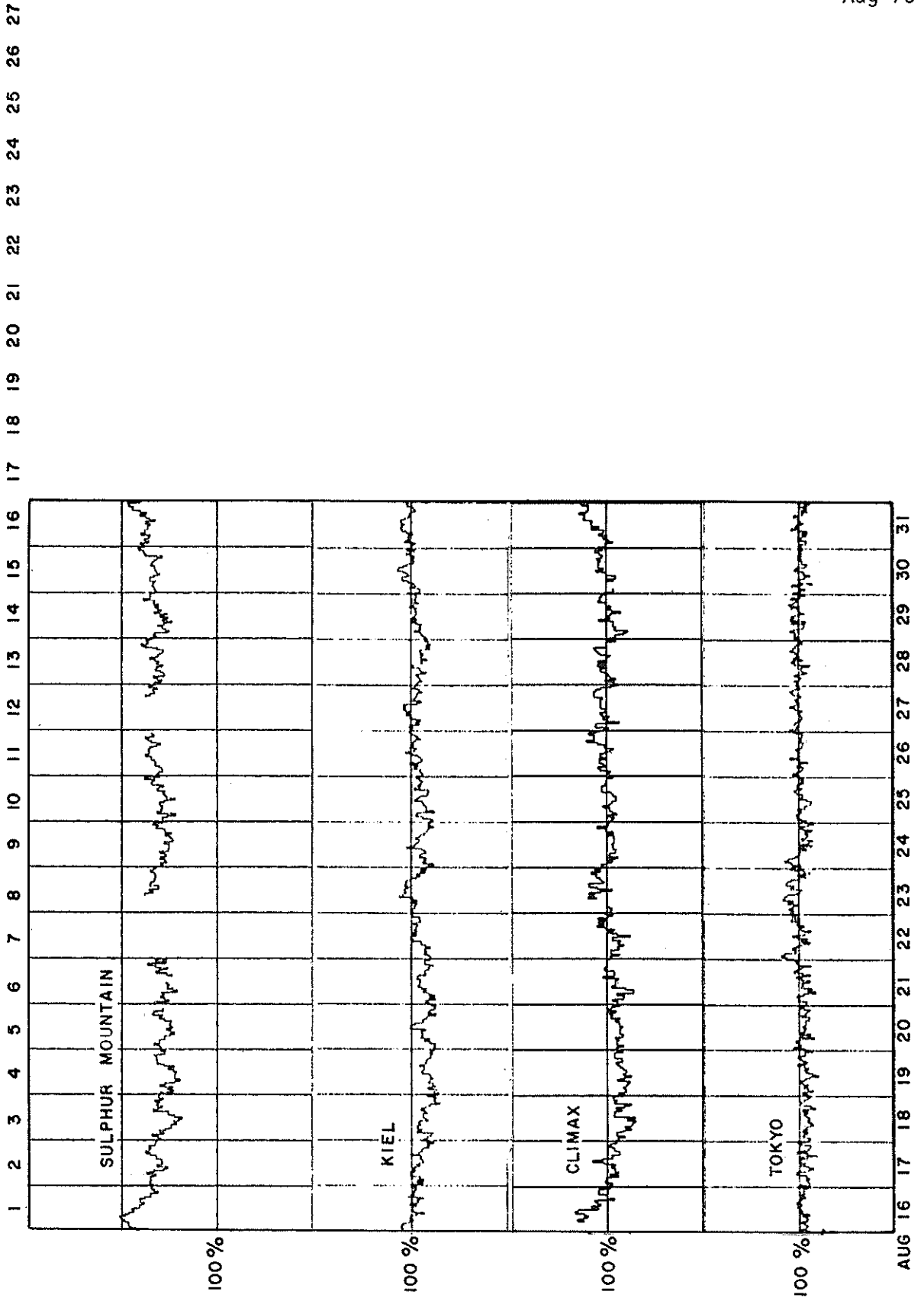
Bartels Rotation 1955 (July-August 1976)



JUL 20 21 22 23 24 25 26 27 28 29 30 31 AUG 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

COSMIC RAY INDICES (Neutron Monitors)

Bartels Rotation 1956 (August 1976)



GEOMAGNETIC ACTIVITY INDICES

AUGUST 1976

Day	Three-Hourly Indices Kp						Three-Hourly Indices Km						Ap	aa				Cp						
	1	2	3	4	5	6	7	8	Sum	1	2	3		4	5	6	7		8	N	S	M		
1	1-	2	2+	1+	1	2-	3-	4-	15+	1+	2+	2+	2-	1+	2-	3-	3+	8	19	15	12	22	0.5	
2	3	3	2	2+	2-	1-	0+	1+	1+	3	3-	2	2+	2-	1-	1-	1+	8	17	12	19	9	0.4	
3	1+	3-	3-	1+	2	4-	2-	2-	17+	1	3-	3-	2-	2-	3	1+	2	10	24	17	15	26	0.5	
4	Q	2+	1+	1	1+	1	1	1+	10+	2+	1+	1+	1+	2-	1	1	2-	5	14	10	11	13	0.2	
5		2	1-	1-	1	2-	3-	1+	11	2	1	1	1+	2	3-	1+	1+	6	15	12	10	16	0.2	
6	Q	2-	2	2	1	1	1	1+	11	2-	2+	2	1+	1+	1+	1	1	5	16	7	13	10	0.2	
7		0	1	2	2-	2+	0+	1	2+	11-	1-	1	2	2	3-	0+	1+	2+	5	15	12	12	16	0.2
8	QQ	2-	2	1+	0+	0+	1-	2	1	9	1+	2+	1	0+	1-	2-	2	1+	4	10	7	10	9	0.2
9		1+	2-	4+	3+	3+	1-	1	2+	16	2-	2	4+	4-	3+	1-	1+	2+	12	23	22	28	18	0.7
10		3	4-	2-	2+	2-	2-	0+	2-	16	3-	3+	1+	2	2-	2-	1-	2	9	20	18	24	14	0.5
11	Q	2	2-	2+	2-	1-	1-	1	0	10	2	2	2	1+	1+	1	0	5	13	8	12	8	0.2	
12	QQ	1-	0+	0	1-	1	1	2-	1+	7-	1-	1-	0	1	1	2	1+	3	12	6	5	14	0.2	
13	QQ	0+	1-	0+	2	0+	1-	1-	1-	6-	1-	1	1	2-	1-	1	1-	3	9	4	7	7	0.1	
14	Q	1-	1	0+	2+	2+	1-	0+	1-	8+	1	1+	1-	2+	3-	1	1	1-	4	12	11	12	11	0.2
15	QQ	0	0	0	1-	1	1-	1	1	4+	0	0+	0	1-	1+	1-	1	1+	2	5	5	3	8	0.0
16		0	2-	1-	2	3	2	2-	2	13	1-	2-	1	2+	3	2	2-	2+	6	15	16	10	22	0.3
17	Q	3-	1	0	0+	1-	2-	1	2-	9	2+	1+	0	0+	1	2-	1	2-	5	13	6	8	12	0.2
18	QQ	2-	2	0+	1	1+	0+	1+	1+	9	1+	1+	1-	1+	2-	0+	1+	1+	4	11	6	9	9	0.2
19		1+	2-	2+	1+	2+	1	1	1	13-	1+	2-	2+	1	2	1	1	1	6	13	9	11	12	0.3
20		2-	2	1+	2-	1	1	1	1+	11+	1+	2-	2-	1+	1	1	1	1+	5	15	7	12	10	0.2
21		1-	1-	3-	2+	1+	2	3-	3-	15	1-	1+	3-	3-	2-	2-	2+	3	8	17	13	13	18	0.4
22		3-	1+	0+	2-	1+	1	1-	1	10+	3-	1	0+	2-	1+	1	1-	1	5	16	6	11	11	0.2
23	0	2-	2	4	4+	4+	5	4-	6-	31-	2-	2	4-	4+	5-	5-	3	5	33	54	70	37	87	1.3
24	0	+	4-	3+	6-	4-	4-	3	2	29	4-	3	3	5-	4-	3+	3	2	25	40	43	52	31	1.2
25	0	4+	4	4	4	4-	4-	4-	3	30+	4-	3+	3+	3+	4-	3+	3+	3-	24	43	35	40	36	1.2
26	0	4-	4	4	3	3	2+	3	3	26	4-	4-	4-	3	3-	3-	3-	3	18	26	30	33	26	1.0
27	0	3	2-	2-	++	2-	2	3+	3-	20+	3-	1	1+	4-	2	2+	3	3-	13	30	23	29	25	0.7
28		2+	2	2+	2+	3-	3+	3+	0+	19-	2	2-	2+	3-	3	3	3	1-	16	24	26	13	32	0.6
29		1+	2+	2+	2	1	1+	2-	2	14	1	2	2	2-	1+	1+	2-	1+	6	13	12	14	11	0.3
30		2	2	1-	1+	1+	1	1+	3-	12+	2	2-	0+	1	2-	1+	1+	2+	6	12	3	3	13	0.3
31		0	1	1+	1+	1+	2	2	2	11	0	1	2-	1+	2+	2-	2	2	5	13	9	6	17	0.2
																			9	16.6	15.7	17.3		0.4

Day	Three-Hourly Indices Kn								Three-Hourly Indices Ks								
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	
1	1+	2+	2+	2-	2-	2-	3-	3+	1	2+	2+	2-	1	2-	3-	3+	
2	3	3	2	2	1+	1	1	2-	3	3-	2	2+	2-	1-	0+	1	
3	1	3	3-	2	2	3+	2-	2-	1	3-	2+	2-	1+	3	1+	2	
4	2+	1	1+	2-	2-	1	1+	2	2+	1+	1+	1	2-	1	0+	1	
5	2	1-	1	2-	2	3	2-	1+	2	1	1	1	1+	2	2+	1	1-
6	2-	2	2+	2-	1+	1+	1+	2-	2-	2+	2-	1	1+	1+	1+	0+	
7	1-	1+	2	2	3-	0+	2-	3-	0+	1	2-	2	3-	1-	1	2	
8	1+	2+	1	0+	1-	2-	2	1	1+	2	1-	0+	1-	2-	2	2-	
9	2-	2	5-	4-	4-	1-	1+	2	2-	2	4	3+	3+	1-	1+	2+	
10	3-	4-	1+	2+	2-	2-	1	2	3-	3	1+	2	2-	2-	1-	2-	
11	2	2+	2+	1+	1+	1+	1	0	2	2-	2	1+	1+	0+	1-	0	
12	1-	1	0	1	1	1+	2	2-	1	1-	0	1	1-	1	2+	1	
13	1-	1-	1	2+	1-	1+	1+	1-	1-	1+	1-	1+	0+	0+	0+	1-	
14	1+	1+	1-	3-	3-	1	1	1	1	1	1	2+	2+	1	0+	0+	
15	0+	0+	0	0+	1+	1	1	1+	0	0+	0	1-	1	0+	1	1+	
16	1-	2-	1	2+	3	2+	2-	2+	0+	1+	1-	2	3	2	2-	2	
17	2+	1+	0	1-	1+	2-	1	2	3-	1	0	0+	1-	1+	1	2-	
18	2-	1+	1-	1+	2	0+	2-	2-	1+	1+	1-	1+	2-	0+	1	1	
19	1+	2-	3-	1+	2	2-	2-	1+	1+	1+	2	1	1+	1+	1	1	
20	1+	2-	2-	1+	1	1+	2-	2-	1+	2-	1	1	1	1-	1	1	
21	1-	1	3	3-	2	2	2+	3-	1	1+	3-	3-	2-	1+	2+	3	
22	3-	1-	0+	2-	1+	2-	1	1+	3-	1+	0+	2-	1+	1+	1-	1-	
23	2-	2+	4-	4+	4-	4	3	5	2-	2	4-	4+	5+	5-	3	5	
24	3+	3+	3+	5-	4-	3+	3	2	4-	3	3-	4+	3+	3	3	2	
25	4-	3+	4-	4-	4-	3+	3+	3	4-	3+	3+	3+	4-	3+	3	2+	
26	4-	3+	4-	3	3-	3-	3	3	4-	4-	4-	3+	3	3-	2+	3	
27	3-	1	1+	4	2	2	3	3-	3	1+	1+	4-	2	3-	3	3-	
28	2	2-	2	3-	3-	3+	3	1-	2	2-	2+	3-	3	3	3+	1-	
29	1+	2+	2	2-	1+	2-	2-	2-	1	2	2	1+	1+	1+	1	1	
30	2-	2	0+	1	2-	1	1+	2+	2+	1+	0+	1	2-	1+	1+	2+	
31	0+	1+	2-	2-	2+	2-	2+	2+	0	1	1+	1+	2	2	2-	2	

DAILY AVERAGE INDICES AP

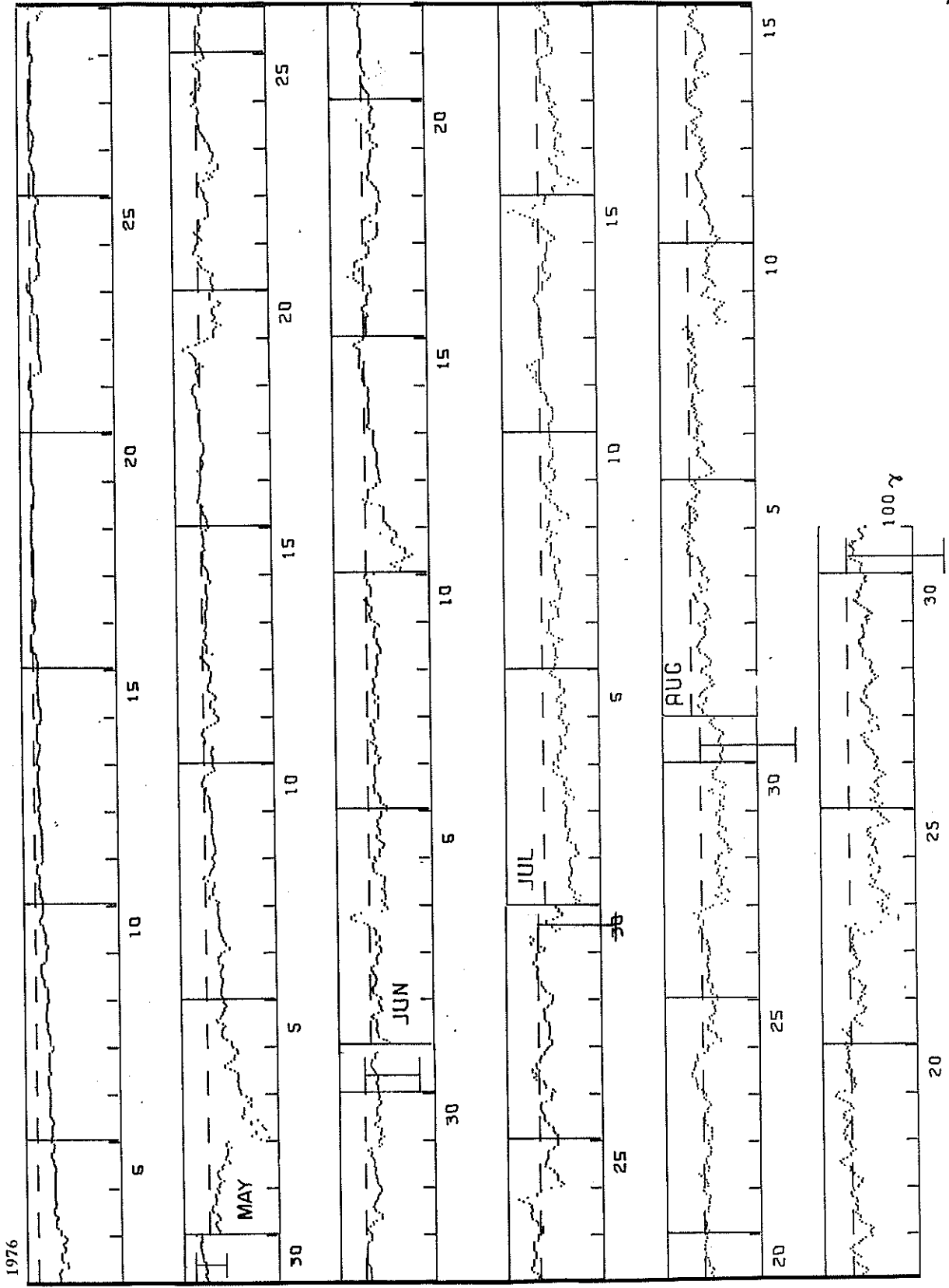
1976

1975

DAY	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
1	7	6	7	32	4	23	17	107	10	6	18	8
2	6	2	36	27	4	20	32	16	58	6	9	8
3	3	11	65	12	15	16	27	44	94	12	12	10
4	3	9	41	13	10	12	12	30	20	20	14	5
5	4	6	22	8	9	8	15	27	14	20	6	6
6	13	25	11	7	13	8	33	30	8	7	6	5
7	7	38	10	4	11	21	26	27	10	13	9	5
8	6	45	7	18	5	29	42	14	10	8	13	4
9	24	37	37	16	4	24	36	16	4	4	10	12
10	26	24	20	8	47	24	32	12	6	6	6	9
11	26	6	13	5	40	12	27	12	11	26	4	5
12	19	12	9	3	13	17	26	9	7	7	5	3
13	17	7	4	3	9	22	11	13	6	4	4	3
14	13	9	3	6	11	17	14	15	4	3	6	4
15	8	5	4	9	7	8	15	4	5	4	19	2
16	6	10	6	14	10	6	18	8	5	5	15	6
17	13	6	17	9	14	14	20	5	4	14	5	5
18	14	4	7	6	9	22	13	2	3	21	6	4
19	8	3	8	6	8	25	11	5	12	4	6	6
20	7	5	9	3	11	19	8	2	19	5	4	5
21	6	6	18	9	20	14	5	5	11	3	3	8
22	4	6	50	10	23	14	3	19	11	3	4	5
23	4	7	8	7	20	4	5	8	14	4	5	30
24	2	4	13	2	21	3	4	16	6	16	4	25
25	3	4	15	18	10	4	4	9	9	18	9	24
26	14	5	14	34	5	9	138	6	6	7	4	18
27	14	5	5	31	6	26	35	11	5	6	8	13
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29	5	12	29	15	6	34	15	17	22	5	18	6
30	2	9	36	11	9		12	10	17	29	19	6
31		19		7	29		10		9		7	5
MEAN	10	12	18	12	13	16	22	17	14	10	9	9

GEOMAGNETIC ACTIVITY INDICES

Hourly Equatorial Dst



Note the sensitivity indicator for each month on the last day of the month and also note that the zero reference level is different for each month.

HOURLY EQUATORIAL DST VALUES (PROVISIONAL)

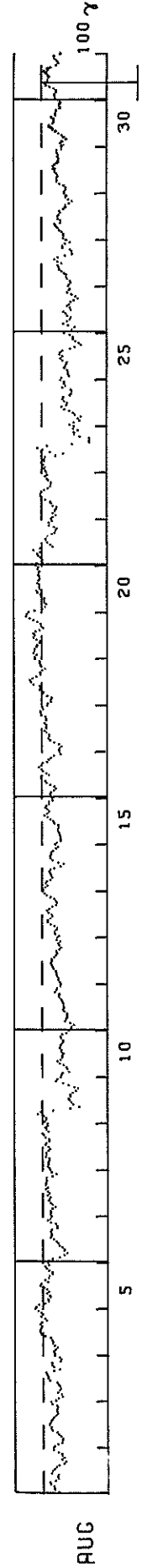
AUGUST 1976

NASA/GODDARD SPACE FLIGHT CENTER

(Units - Gammas)

(Time-UT)

CAY	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	-16	-12	-12	-11	-8	-7	-13	-16	-15	-16	-9	-10	-12	-14	-17	-22	-24	-20	-22	-20	-20	-16	-11	-11
2	-12	-16	-20	-21	-21	-19	-17	-15	-10	-9	-9	-7	-8	-9	-10	-12	-14	-16	-15	-15	-16	-15	-10	-9
3	-14	-17	-21	-20	-16	-18	-19	-18	-17	-15	-8	-6	-6	-5	-4	-12	-18	-12	-10	-10	-19	-20	-18	-13
4	-13	-12	-14	-16	-13	-11	-11	-10	-9	-3	1	2	2	1	0	2	0	-5	-3	1	-1	1	4	7
5	6	3	-3	-7	-6	-9	-8	-5	-7	-5	-2	1	2	1	-3	-7	-8	-11	-11	-7	-5	-3	-7	-6
6	-7	-11	-18	-23	-26	-23	-23	-21	-18	-17	-15	-12	-9	-10	-10	-9	-10	-16	-16	-14	-9	-6	-9	-10
7	-9	-9	-9	-11	-14	-11	-9	-7	-8	-9	-6	-8	-6	-4	-6	-4	-4	-5	-5	-5	11	-15	-10	-9
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9	-3	-5	-5	-2	4	1	-12	-30	-39	-33	-31	-29	-28	-30	-30	-33	-36	-38	-34	-28	-22	-15	-17	-20
10	-21	-22	-29	-27	-26	-23	-19	-17	-20	-22	-22	-23	-21	-21	-19	-20	-21	-23	-23	-21	-20	-22	-26	-29
11	-31	-32	-34	-30	-25	-26	-27	-27	-27	-24	-23	-24	-23	-23	-22	-21	-19	-18	-19	-14	-16	-17	-20	-21
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19	6	4	7	6	6	4	3	1	0	4	7	6	7	5	1	-3	-1	0	3	7	11	15	14	12
20	6	-2	-5	-6	-4	-4	-4	-1	0	3	4	1	1	1	3	2	1	1	2	2	1	3	2	5
21	4	-2	-2	0	2	3	0	7	0	-13	-10	-7	-6	-8	-10	-12	-15	-16	-17	-14	-9	-9	-12	-11
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31	-16	-15	-15	-17	-17	-14	-10	-6	-5	-8	-8	-9	-8	-6	-4	-8	-11	-17	-19	-18	-15	-14	-14	-21



PRINCIPAL MAGNETIC STORMS

AUGUST 1976

OBS. 2 letter IAGA code	GEOMAG- NETIC LATI- TUDE	COMMENCEMENT			SC - AMPLITUDES			MAXIMUM 3 HOUR - INDEX K		RANGES			UT END	
		DAY	hr min (UT)	TYPE	D(')	H(γ)	Z(γ)	DAY (3 HOUR PERIOD)	K	D(')	H(γ)	Z(γ)	DAY	HOURL
HD	07.6N	8	1550	..	..	..	..	09(5)	5	6	150	25	10	06
CO	64.6N	9	06--	..	..	..	..	09(3,4,5)	6	144	1070	530	09	15
NE	55.1N	9	04--	..	..	..	..	09(3)	6	36	85	147	10	15
BD	48.9N	9	06--	..	..	..	..	09(3)	6	22	68	34	09	16
HD	07.6N	16	0900	..	..	..	..	16(4,5)	3	4	54	15	17	02
HD	07.6N	21	0600	..	..	..	..	21(3,8)	3	5	69	15	22	01
CO	64.6N	23	06--	..	..	..	..	23(6)	7	219	1460	970	26	18
NE	55.1N	23	00--	..	..	..	..	26(3)	6	38	139	154	27	13
WI	54.2N	23	07--	..	..	..	..	23(8)	6	35	225	75	25	22
FR	49.6N	23	01--	..	..	..	..	23(8) 24(4)	5	24	145	55	27	13
BD	48.9N	23	01--	..	..	..	..	27(4)	5	30	101	55	27	17
TU	40.4N	23	05--	..	..	..	..	24(4) 25(1) 26(1,3)	5	15	90	30	27	03
AL	09.5N	23	05--	..	..	..	..	23(5)	6	6	152	47	24	20
HD	07.6N	23	0500	..	..	..	..	23(6)	6	6	164	27	27	21
GU	04.0N	23	0645	..	..	..	..	23(3)	5	10	100	20	25	16
AN	01.5N	23	05--	..	..	..	..	--	-	5	175	65	24	20
TV	01.1S	23	05--	..	..	..	..	--	-	3	218	112	24	20
PH	18.6S	23	06--	..	..	..	..	23(4)	5	6	90	50	25	18
HR	33.7S	23	0246	SC	- 1	- 5	- 4	23(5)	6	23	126	96	24	21
GN	43.2S	23	05--	..	..	..	..	23(5)	6	22	120	125	28	19
KG	56.5S	23	07--	..	..	..	..	23(5,6,8)	6	--	--	--	24	21

110
Aug 76

SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS

AUGUST 1976

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

The meaning of the station symbols is given in the IAGA-Bulletins nr. 32. Times of ssc are mean values.

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

n o n e

Solar-flare effects (sfe)

Effects confirmed by ionospheric or solar observations are underlined.

02 0912 - 0920 TN

22 1159 - WN

RADIO PROPAGATION QUALITY FIGURES AND FORECASTS

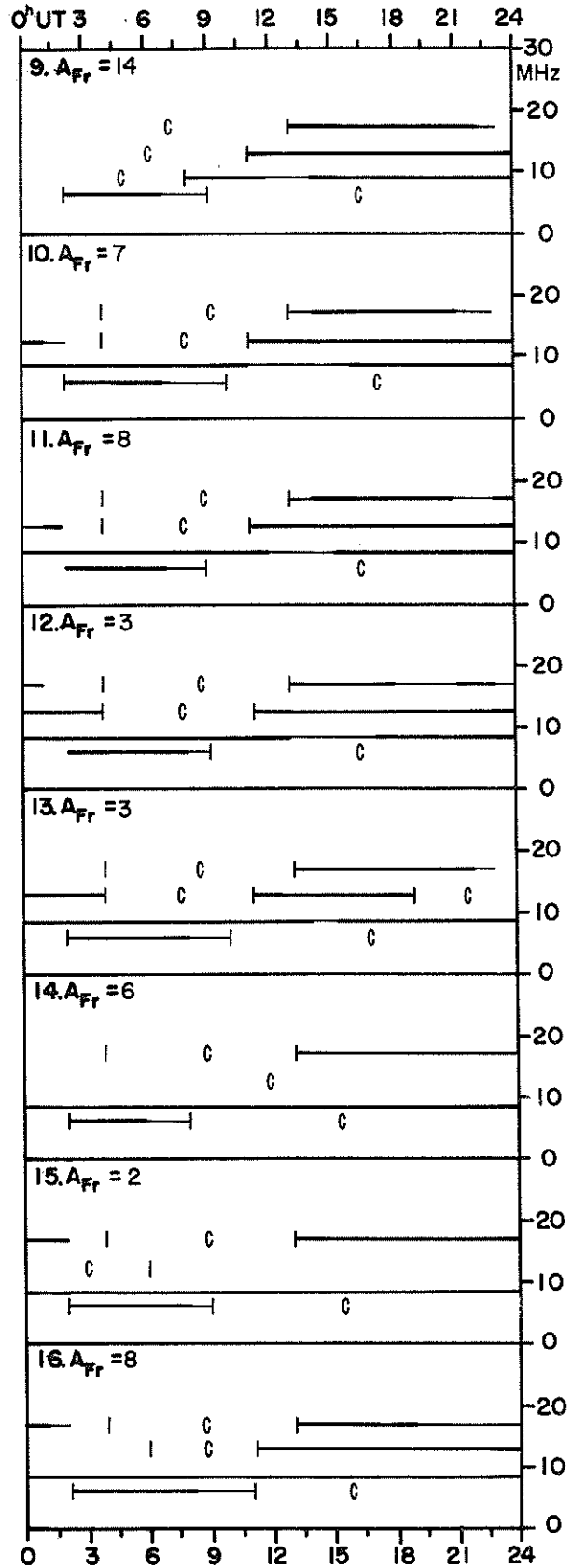
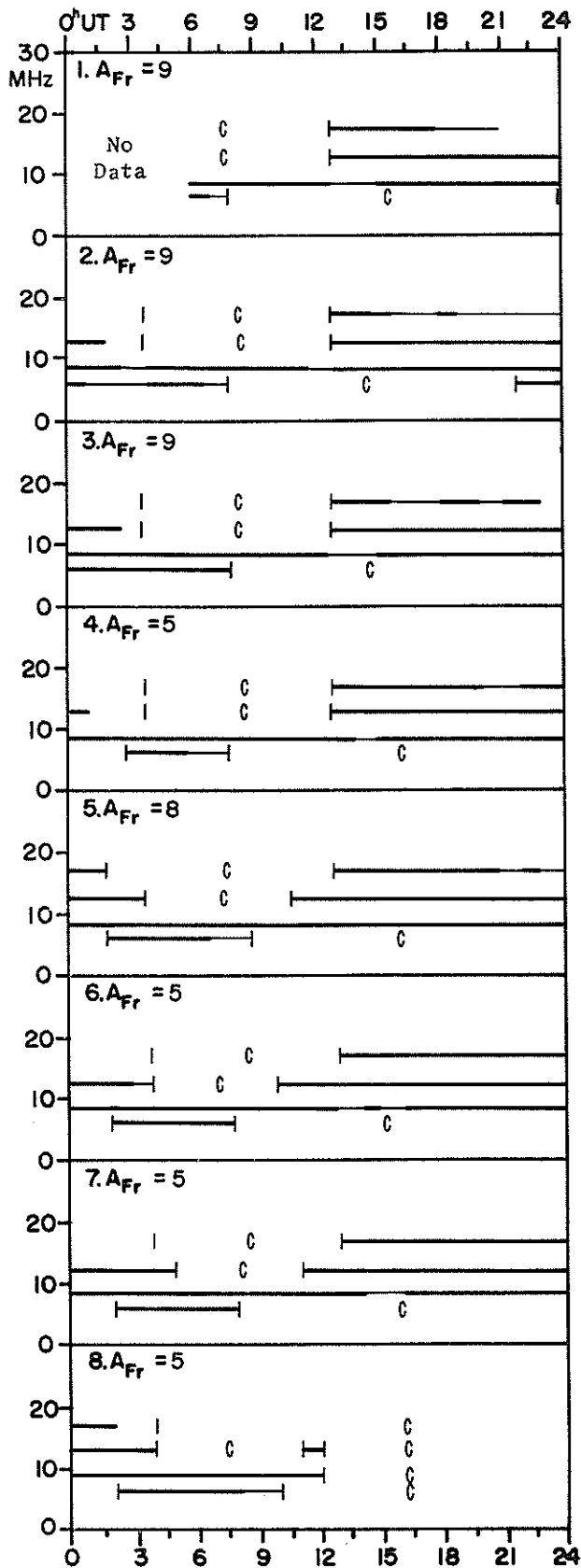
AUGUST 1976

North Atlantic

AUG 1976	WHOLE DAY INDICES NORTH ATLANTIC	ADVANCE FORECASTS (JC- REPORTS) FOR WHOLE DAY	NORTH ATLANTIC								GEOMAGNETIC INDICES		
			6-HOURLY QUALITY FIGURES				SHORT-TERM FORECASTS ISSUED ABOUT ONE HOUR IN ADVANCE OF				K _{FR}		A _{FR}
			00 TO 06	06 TO 12	12 TO 18	18 TO 24	02	08	14	20	HALF DAY (1) (2)		OBSERVED
01	6-	6	5+	4+	6+	60	6	6	6	6	3	2	9
02	6-	6	6-	5+	6+	60	6	6	5	6	3	1	9
03	6+	6	6-	6+	6+	7-	6	6	6	6	2	2	9
04	6+	6	6-	6+	6+	6+	6	5	6	6	2	1	5
05	6+	5	60	60	6+	6+	6	6	6	6	2	2	8
06	60	6	60	7-	6+	6-	6	6	6	6	2	1	5
07	6-	6	60	6-	6-	6-	6	6	6	6	2	2	5
08	6-	6	6+	5+	6-	6-	6	6	6	6	2	1	5
09	5+	6	60	4+	6-	6-	6	6	5	5	3	2	14
10	5+	6	5+	5-	6-	6-	5	4	6	6	2	1	7
11	6-	6	6-	6-	6-	6-	6	6	5	6	3	1	8
12	60	5	6-	60	7-	6-	6	6	6	6	1	1	3
13	6-	6	6-	6-	6-	6-	6	6	6	6	1	1	3
14	60	6	6-	60	7-	6-	6	6	6	6	2	2	6
15	6-	6	5+	6-	60	6-	6	6	6	6	1	1	2
16	6-	6	6-	50	6-	6-	6	6	6	6	2	3	8
17	60	6	60	60	6+	6+	6	6	6	6	1	2	5
18	60	6	6+	6-	6+	6-	6	6	6	6	2	2	5
19	6-	6	60	60	6-	6-	6	6	6	6	2	2	9
20	60	6	60	60	6+	5+	6	6	6	6	2	1	5
21	6-	6	6-	6-	6-	60	6	6	5	5	2	2	9
22	6-	6	6-	60	6-	60	6	5	6	6	1	1	5
23	6-	6	6-	6-	6-	6-	6	6	6	5	3	4	24
24	5+	5	5+	50	50	60	5	5	4	5	4	3	17
25	5+	5	5+	4+	5+	6+	4	4	5	5	4	3	19
26	5+	5	6-	40	6-	6-	4	4	5	5	4	2	17
27	5+	5	60	40	6-	6-	5	5	5	5	3	2	12
28	6-	6	6-	50	6+	5+	6	5	6	5	2	2	9
29	6-	6	5+	6-	6+	6-	5	5	5	6	2	2	7
30	6-	6	5+	6-	7-	60	6	5	6	6	2	2	8
31	60	6	6-	60	60	6-	6	6	6	6	2	2	7

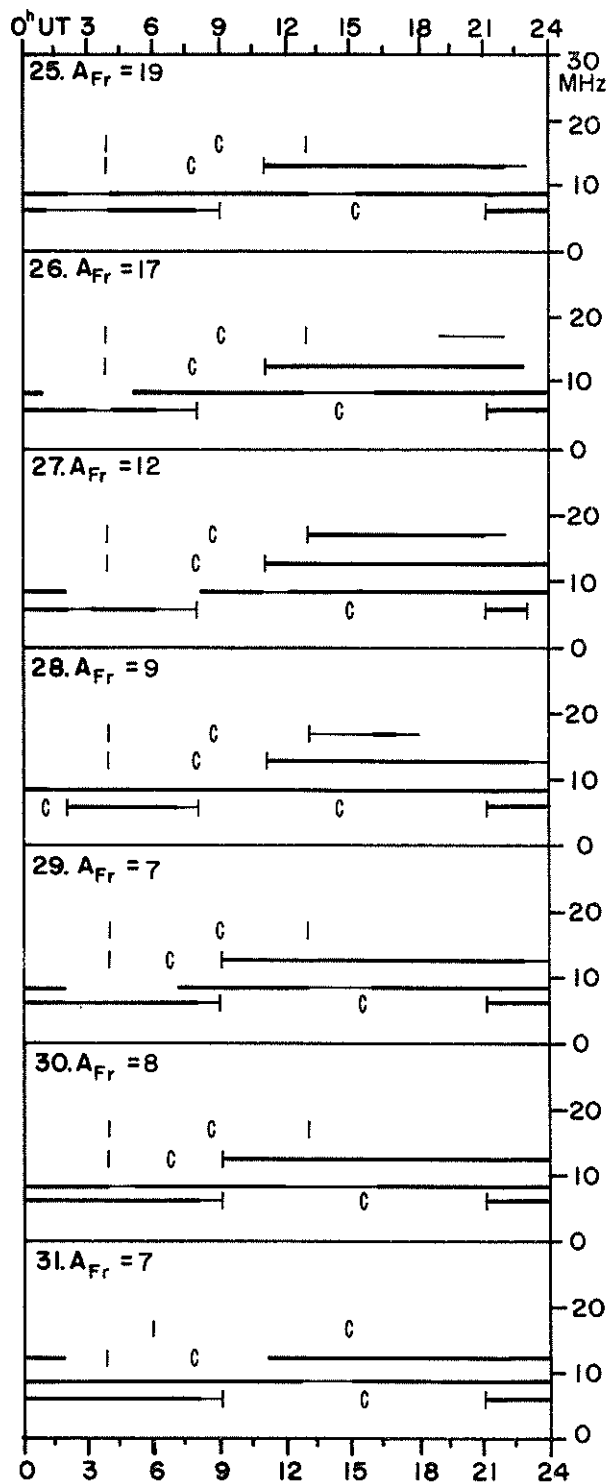
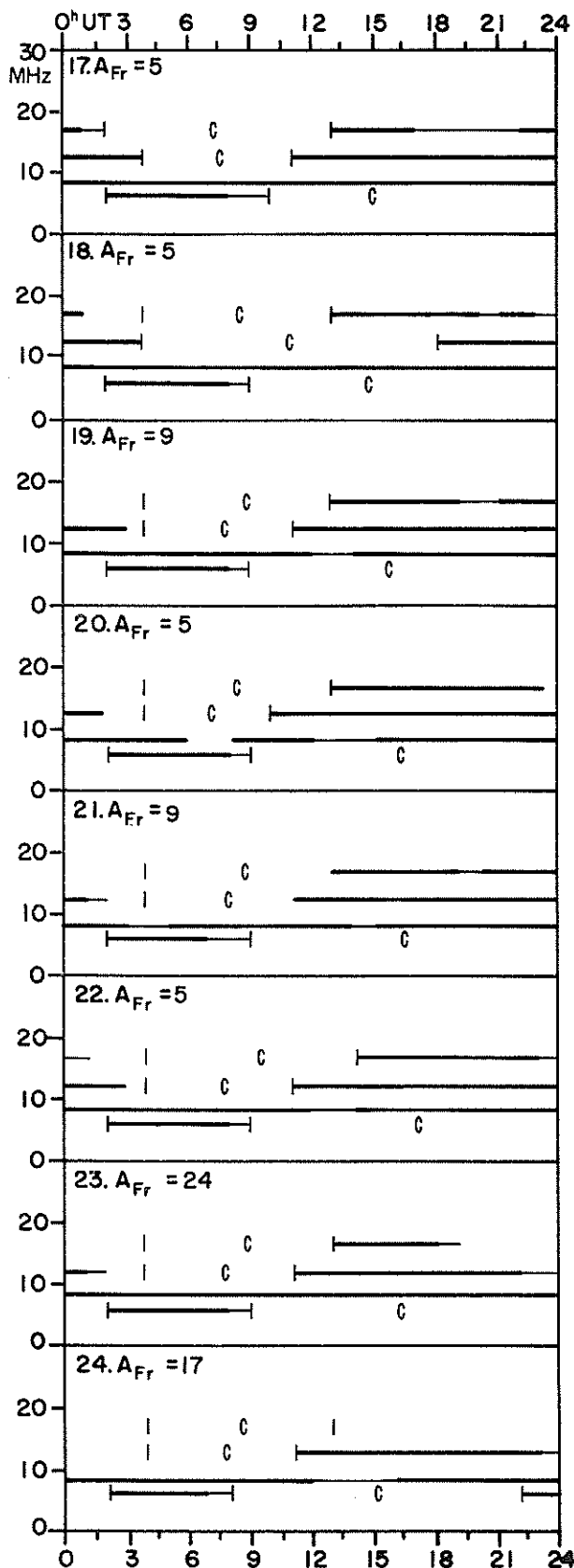
TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

AUGUST 1976



TRANSMISSION FREQUENCY RANGES -- NORTH ATLANTIC PATH

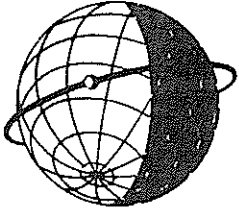
AUGUST 1976



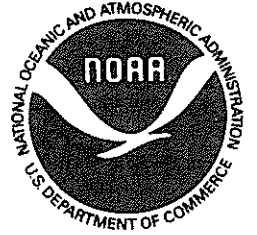
Field strengths from five frequencies, 6.425, 8.542, 12.813, 17.084 and 22.378 MHz, observed on a Lüchow.-Halifax circuit are represented above. Heavy solid lines represent field strengths ≥ -12 dB above $1 \mu\text{V/m}$ (transmitter power reduced to 1 kW). Observed field strengths between -12 dB above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

RADIO PROPAGATION QUALITY INDICES
AUGUST 1976

	TOKYO	HALIFAX	MOSCOW	CANBERRA	BRACKNELL
1	5.5	7.2	13.4	4.0	12.5
2	5.1	7.5	12.8	4.7	12.5
3	5.8	7.9	13.1	4.5	12.5
4	7.0	8.3	13.1	5.0	12.9
5	6.0	8.8	13.2	4.9	12.7
6	5.9	8.4	13.0	4.6	11.6
7	7.2	9.1	13.2	4.9	12.5
8	6.3	8.3	13.1	4.8	12.4
9	6.3	8.0	12.9	4.0	12.9
10	5.2	7.5	13.2	4.5	12.7
11	5.1	8.2	12.9	5.2	12.7
12	5.7	8.7	13.4	5.1	12.6
13	6.6	8.2	13.4	5.3	12.6
14	6.5	7.7	13.7	5.4	12.9
15	6.0	7.7	13.4	5.8	13.0
16	6.1	8.3	13.5	4.7	11.9
17	6.2	8.6	13.5	4.8	13.0
18	6.7	8.2	13.3	5.0	13.0
19	6.6	8.1	13.5	4.8	12.5
20	6.1	7.2	13.2	4.9	12.7
21	7.2	7.8	13.4	5.2	12.3
22	5.8	8.0	13.7	4.5	12.9
23	4.0	6.8	13.4	4.4	13.0
24	2.9	5.8	13.5	3.6	12.6
25	3.5	5.9	12.8	3.3	12.3
26	3.4	5.9	12.4	3.7	12.3
27	4.1	6.3	12.9	4.1	11.9
28	3.9	7.0	12.9	3.6	12.9
29	5.3	7.6	13.1	4.6	12.5
30	4.9	7.8	13.0	4.6	12.6
31	5.2	8.4	12.7	4.0	12.5
MEAN	5.6	7.7	13.2	4.6	12.6



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."