OCTOBER 2001 NUMBER 686 - Part I

# Solar-Geophysical Data prompt reports

Data for August and September 2001
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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OCTOBER 2001 NUMBER 686 - Part I

# Solar-Geophysical Data prompt reports

Data for August and September 2001

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**NATIONAL GEOPHYSICAL DATA CENTER**
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# SOLAR-GEOPHYSICAL DATA

Number 686

(Issued in Two Parts)

Editor: Helen E. Coffey

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The entry "680A 56" under Feb 01, for example, means that the sunspot drawings for Feb 01 appear in SOLAR-GEOPHYSICAL DATA No. 680, Part I, and that they begin on page 56. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

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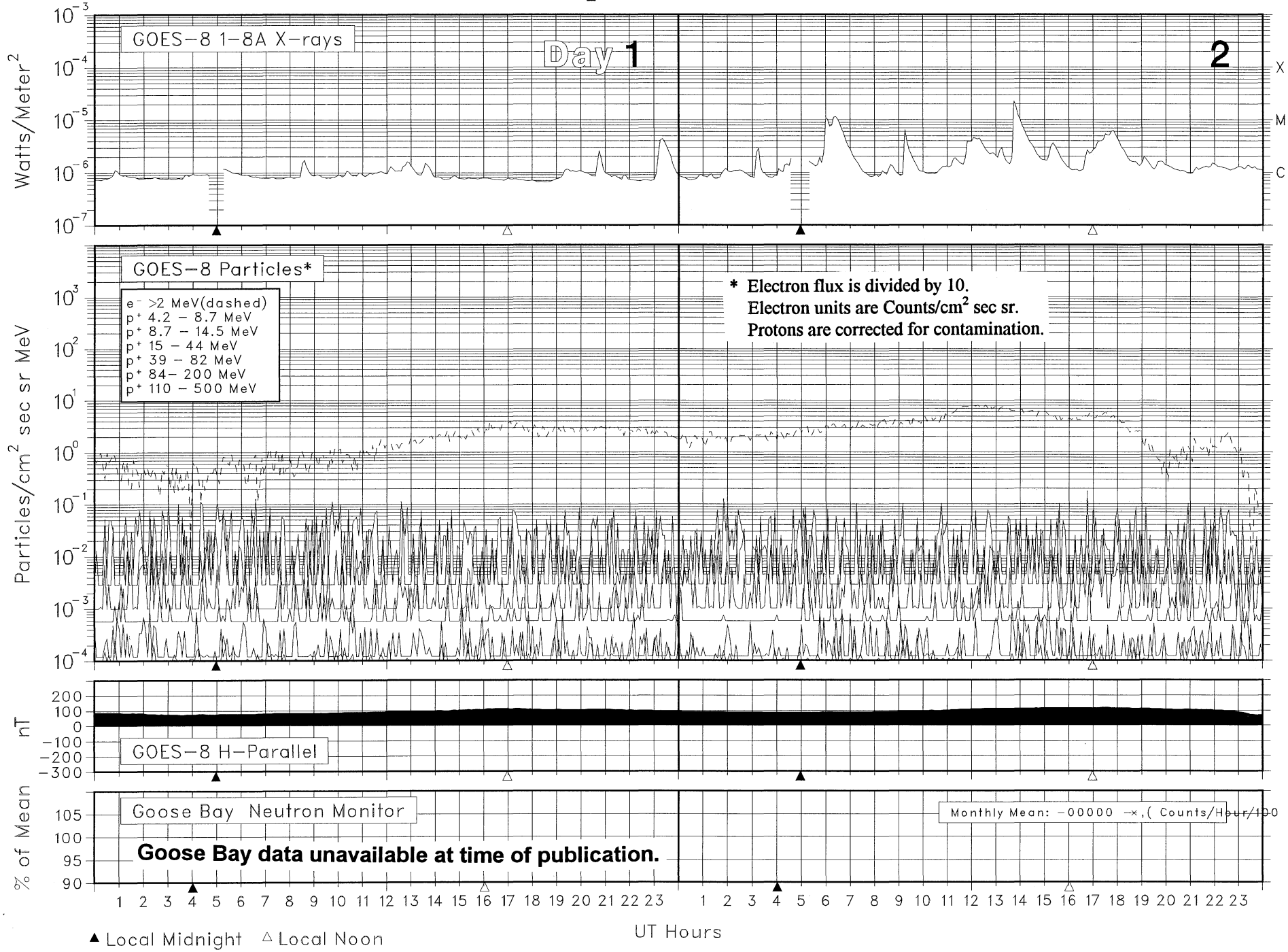
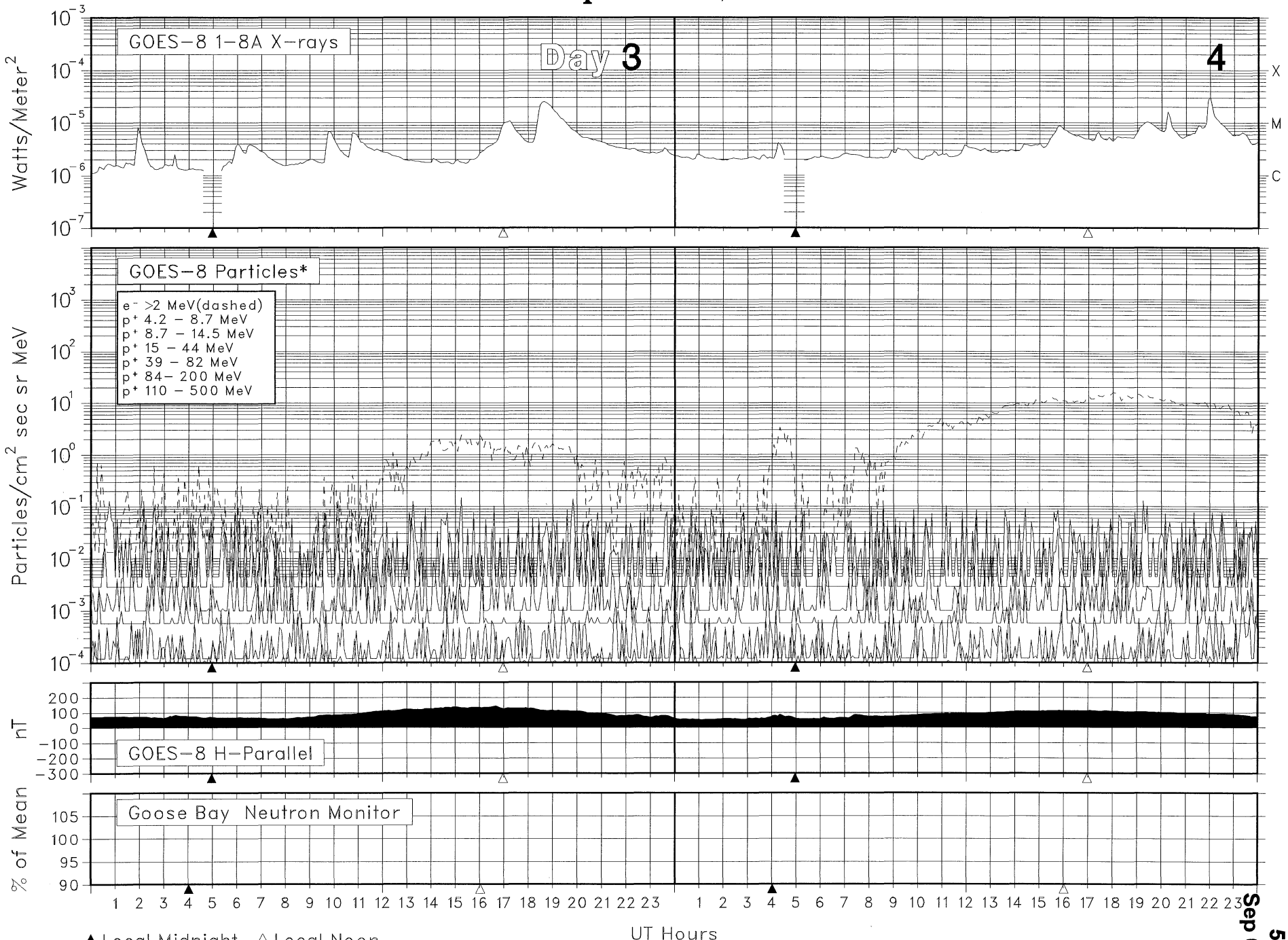
## September 2001



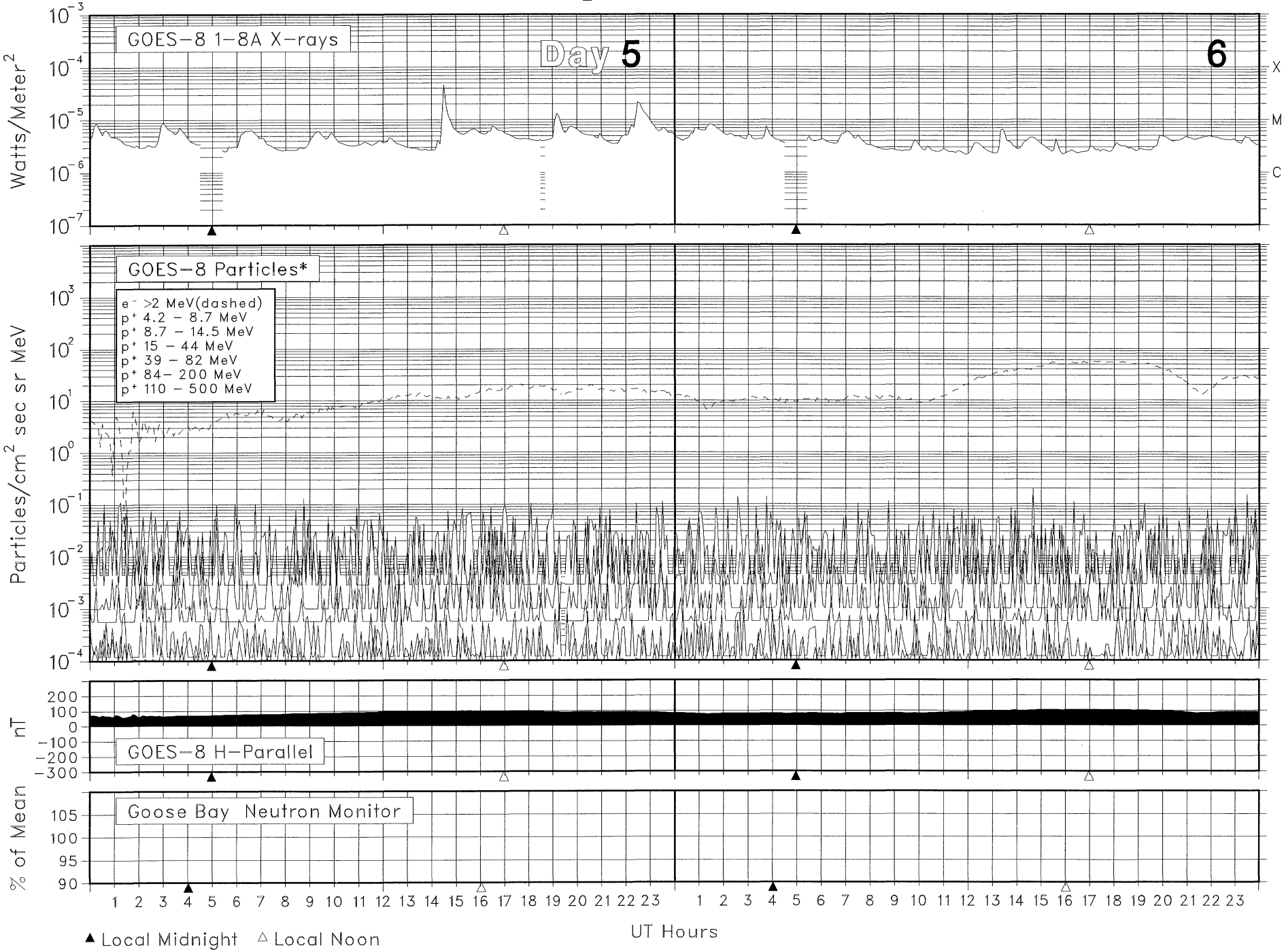


# SOLAR-TERRESTRIAL ENVIRONMENT
## September 2001



# SOLAR-TERRESTRIAL ENVIRONMENT
## September 2001





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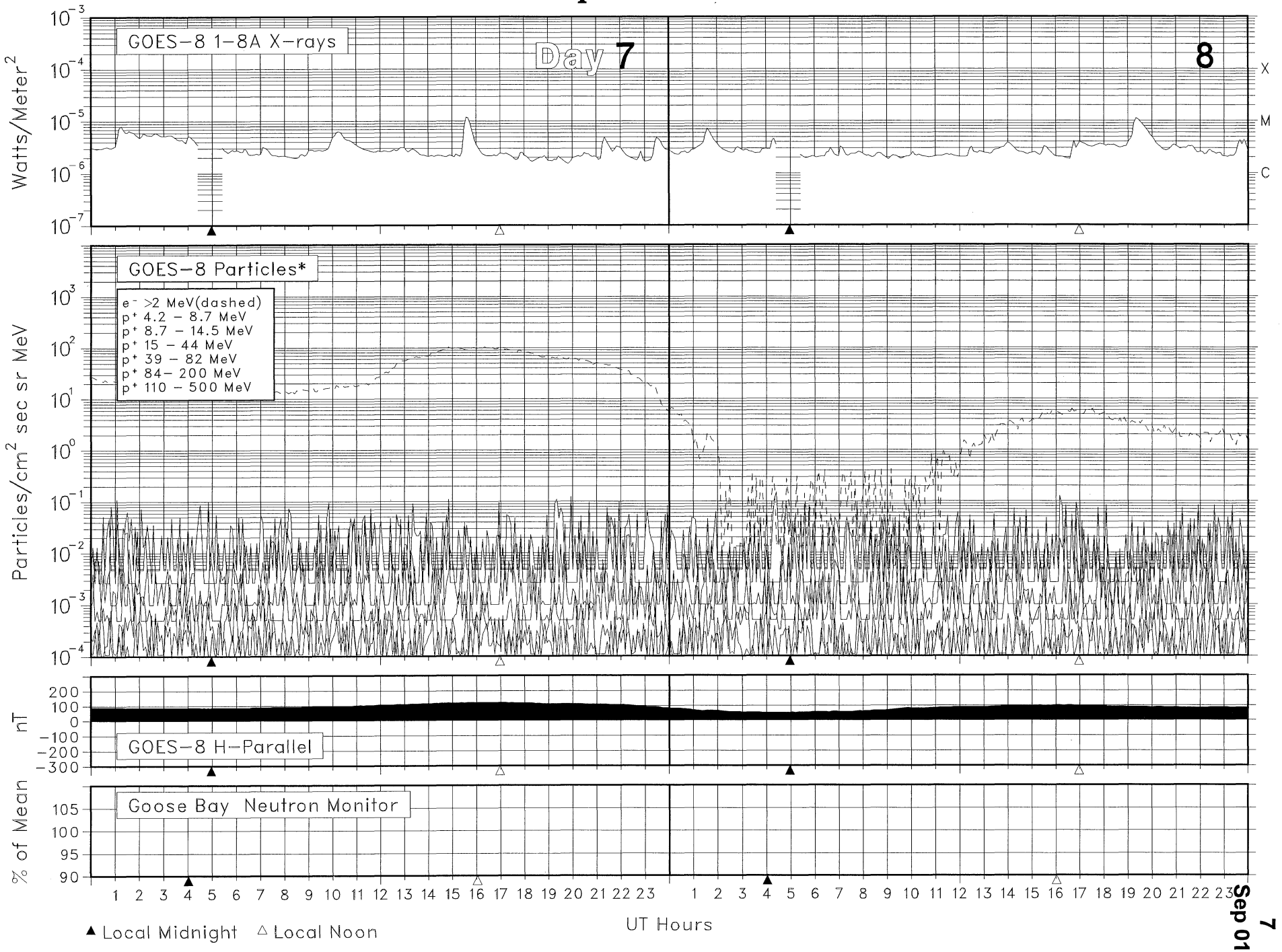
## September 2001



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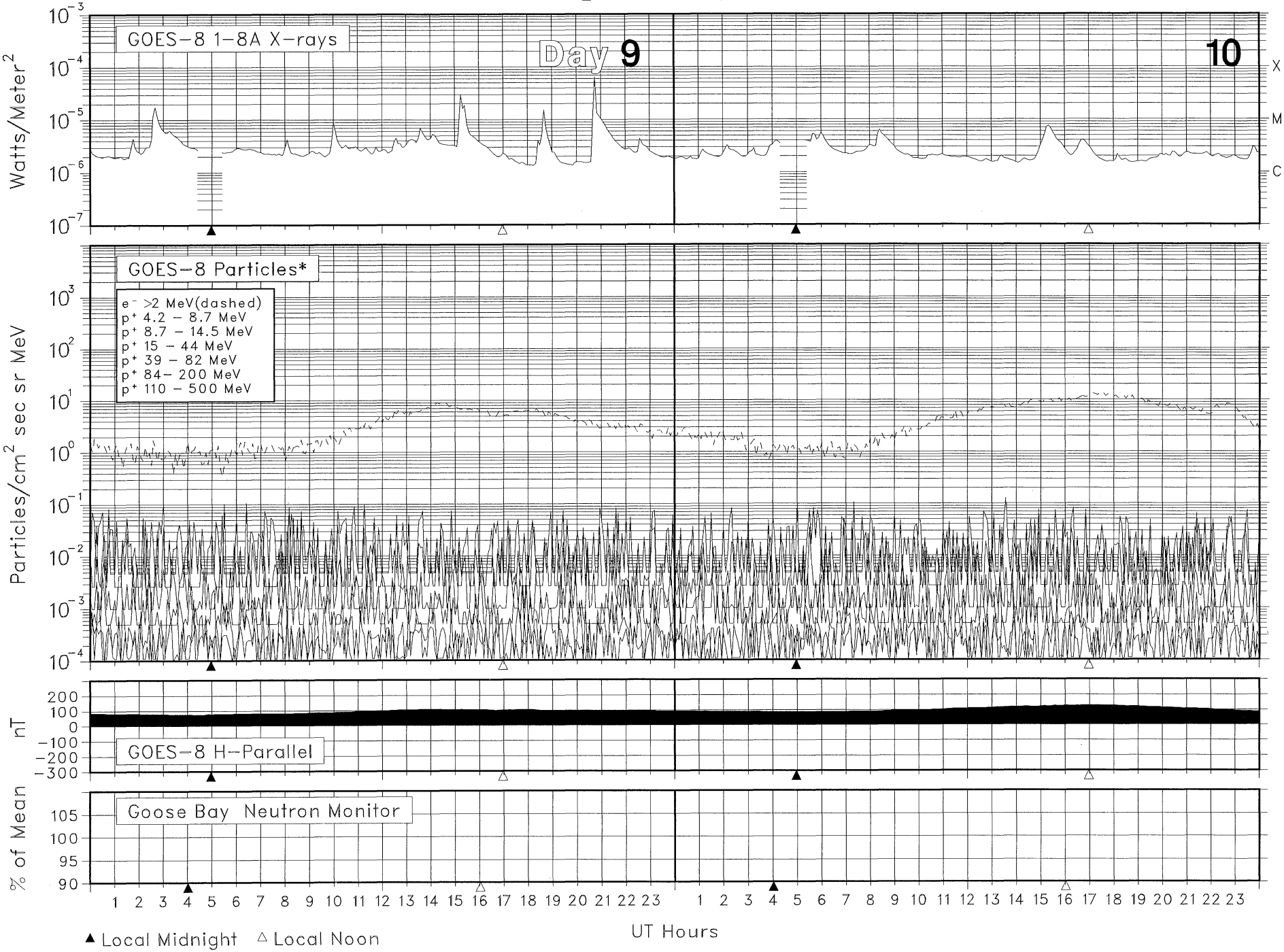
## September 2001





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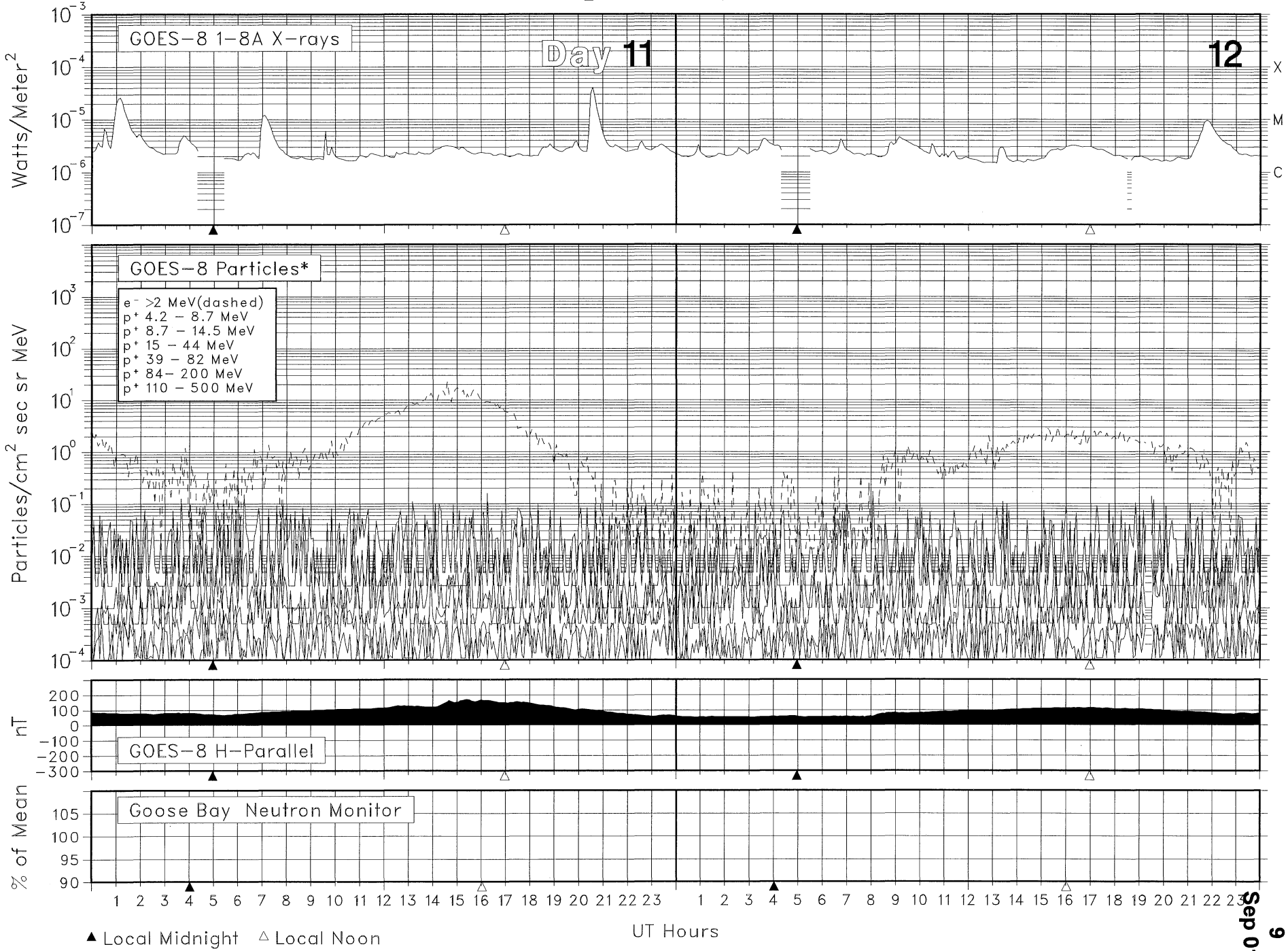

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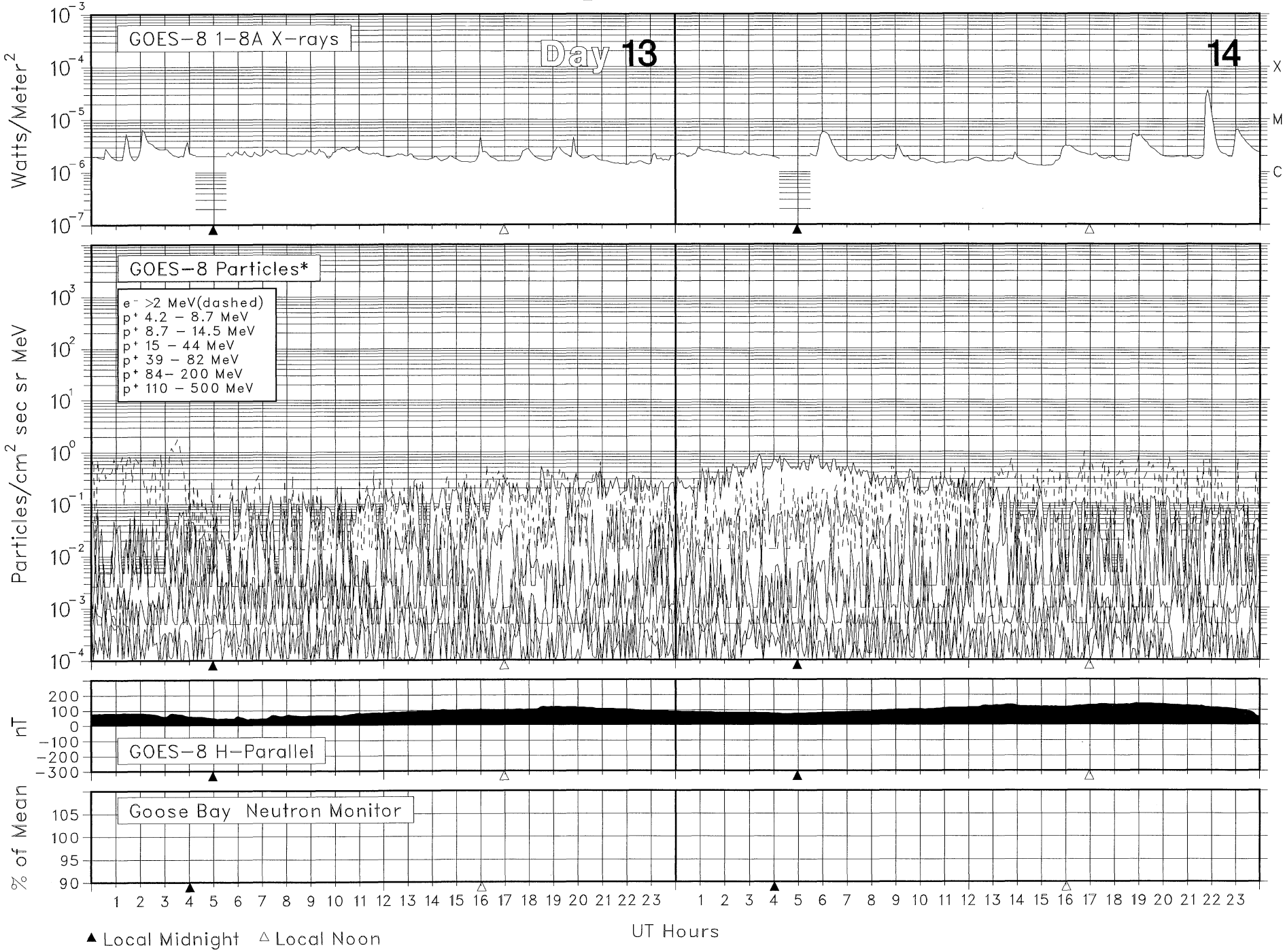
## September 2001

10 Sep 01



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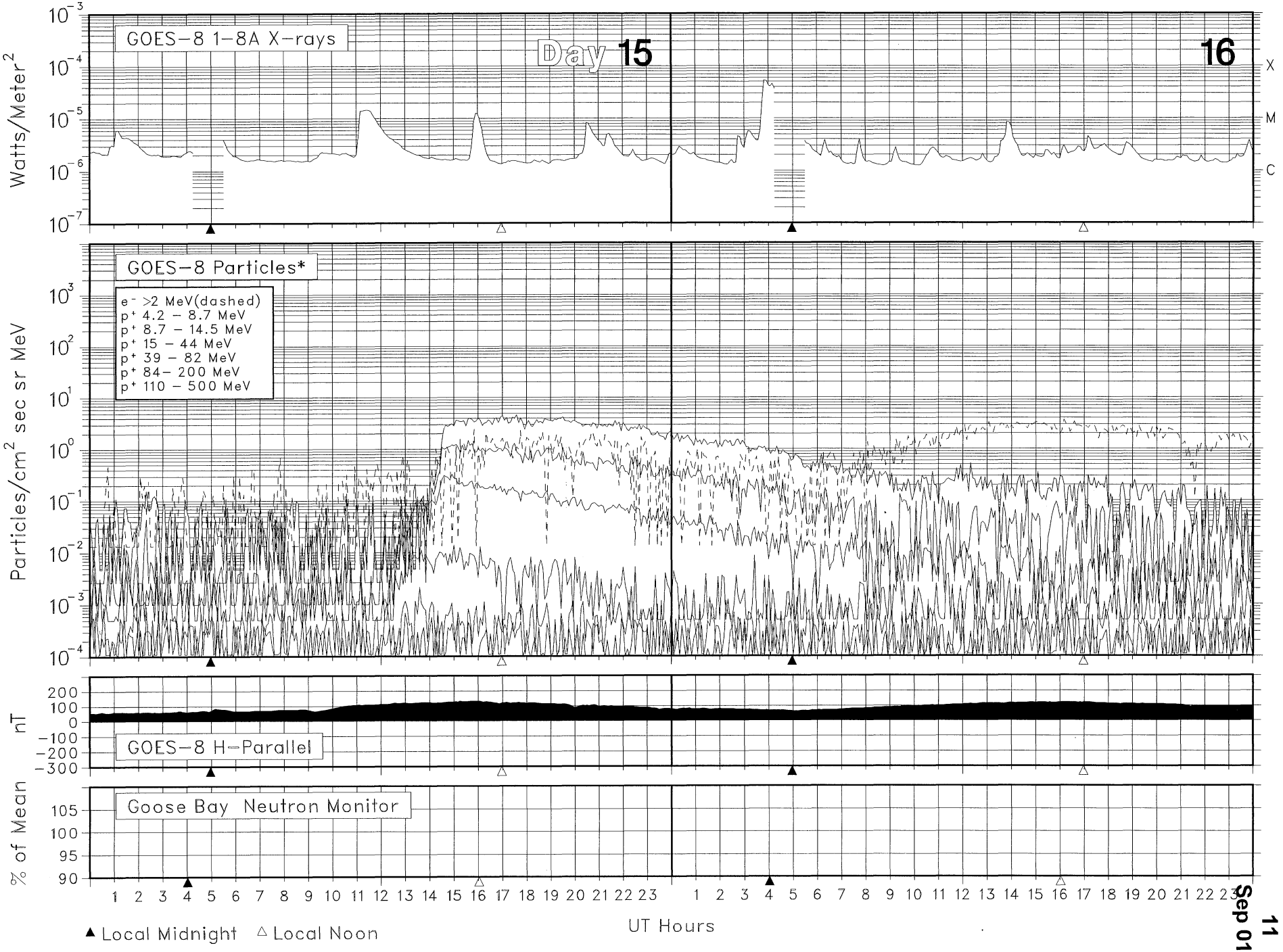


11 Sep 01

# SOLAR-TERRESTRIAL ENVIRONMENT
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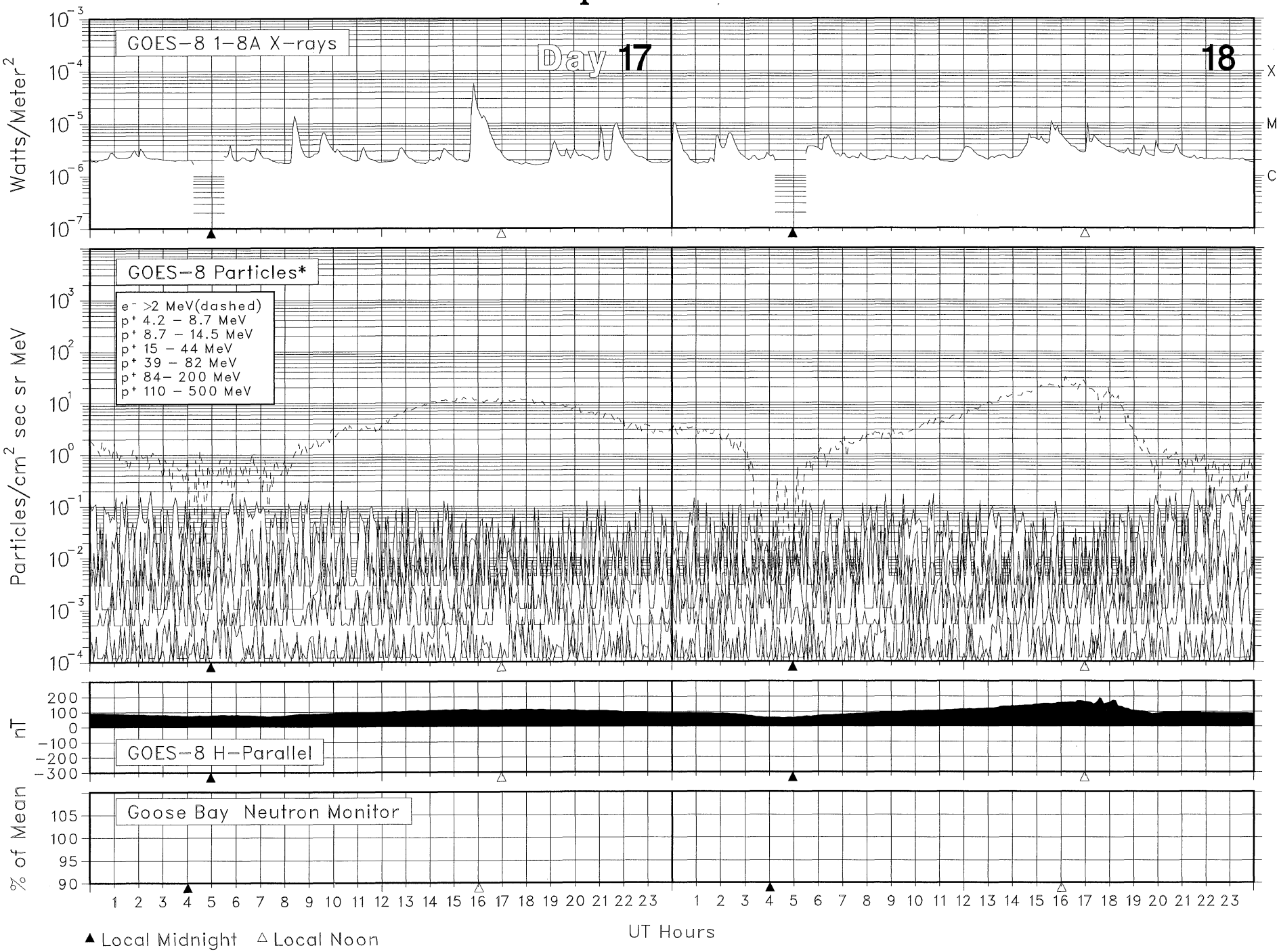
12 Sep 01



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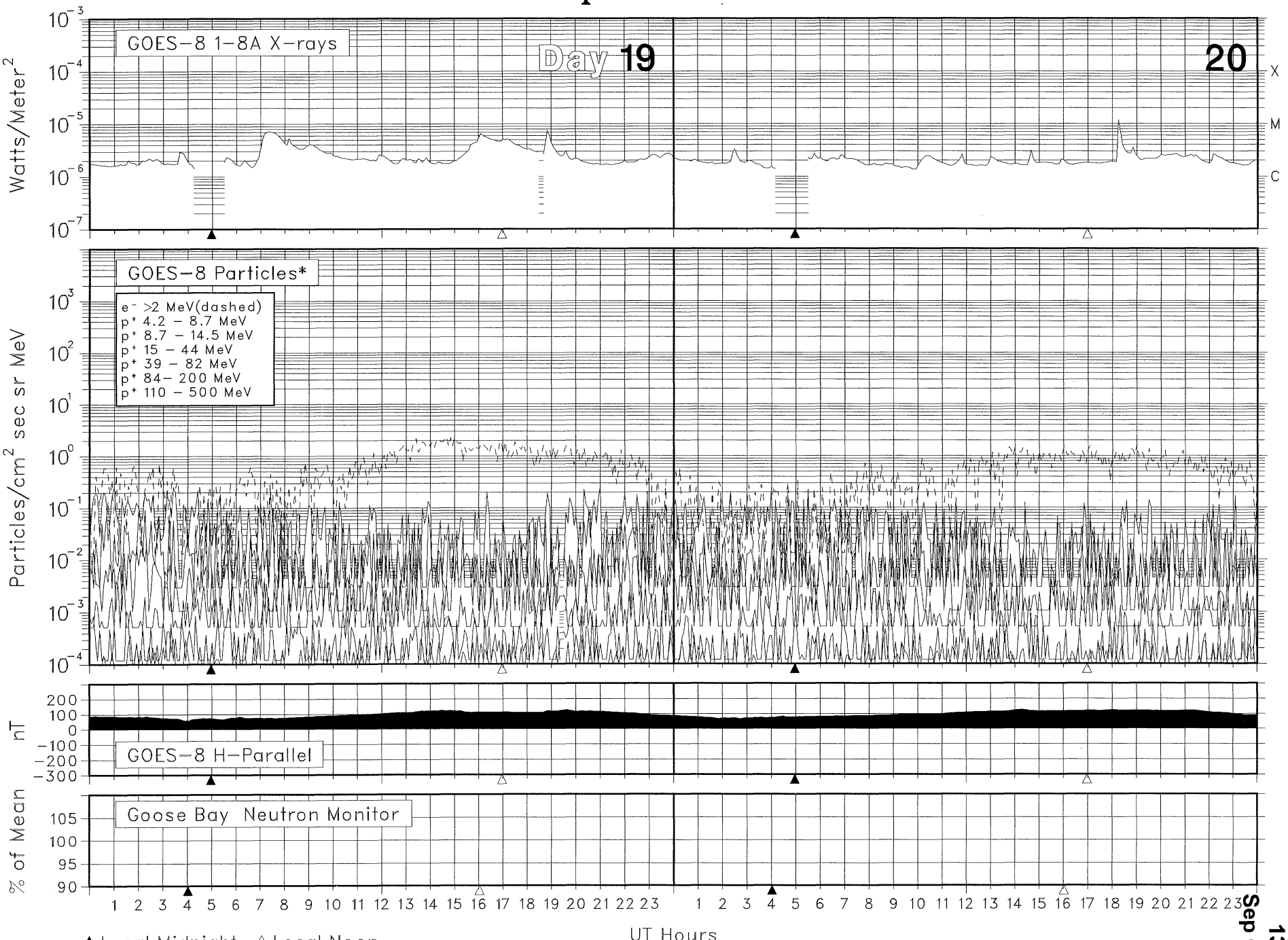
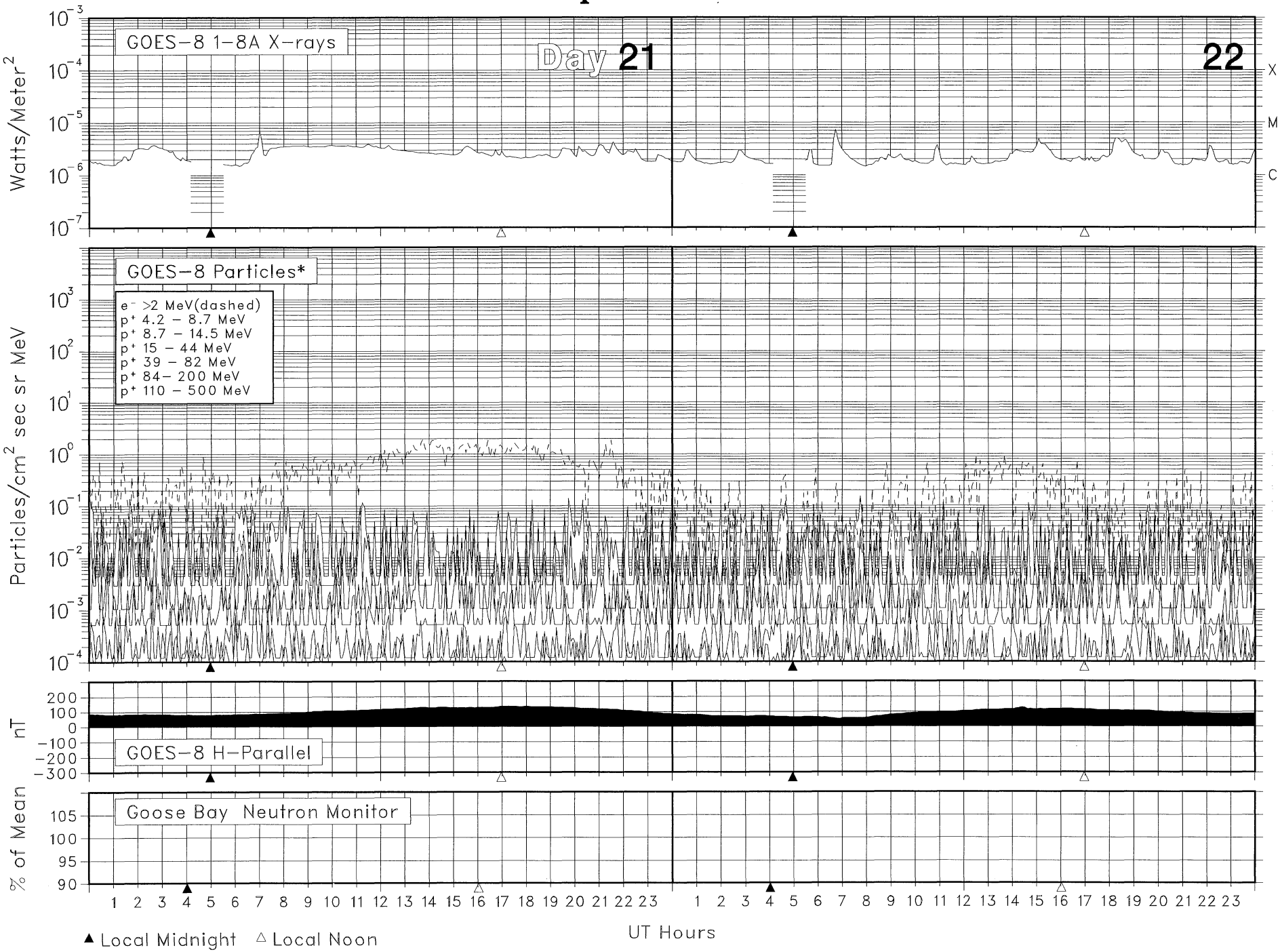
## September 2001



# SOLAR-TERRESTRIAL ENVIRONMENT
## September 2001

14 Sep 01



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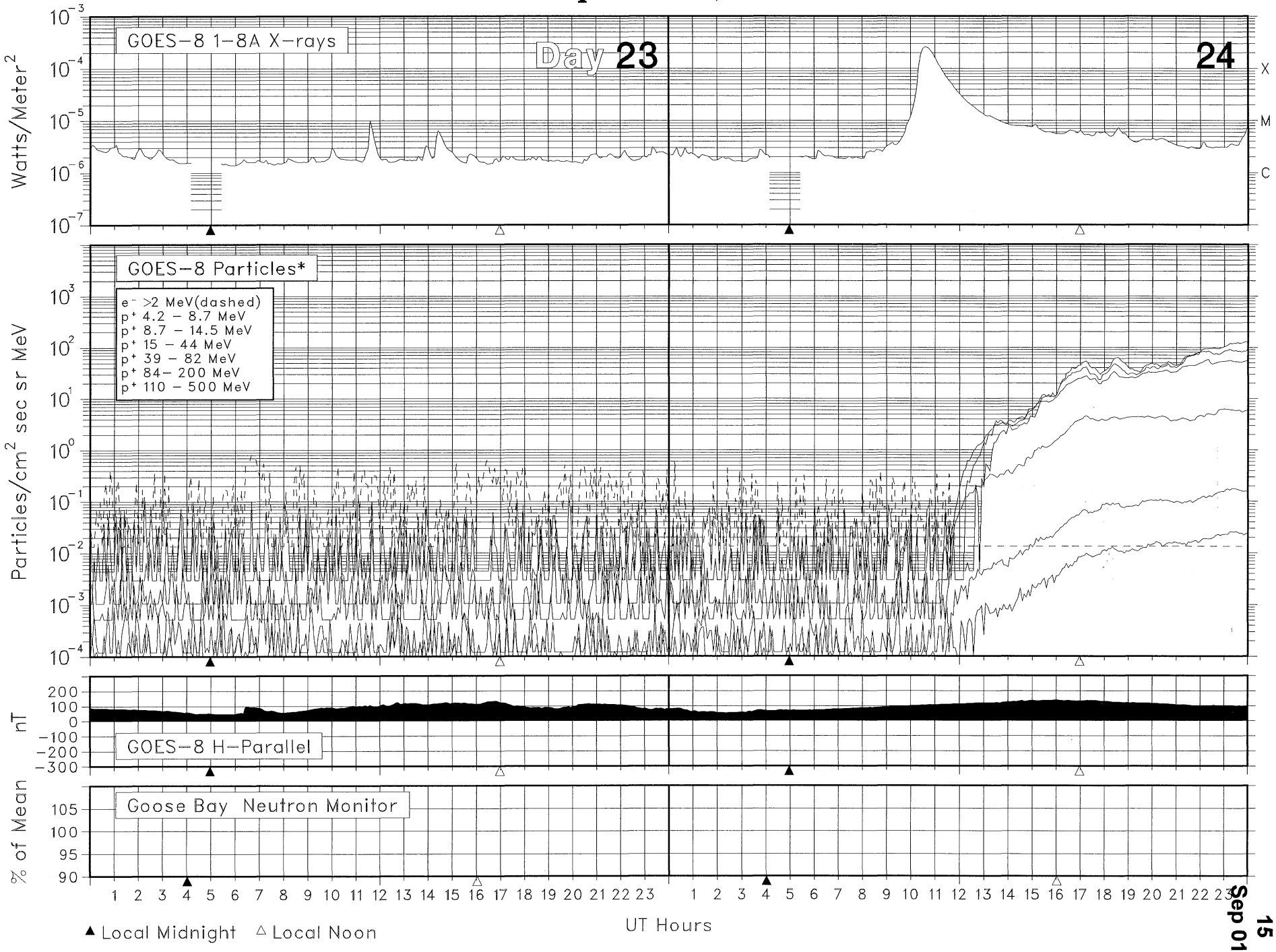
## September 2001




15 Sep 01

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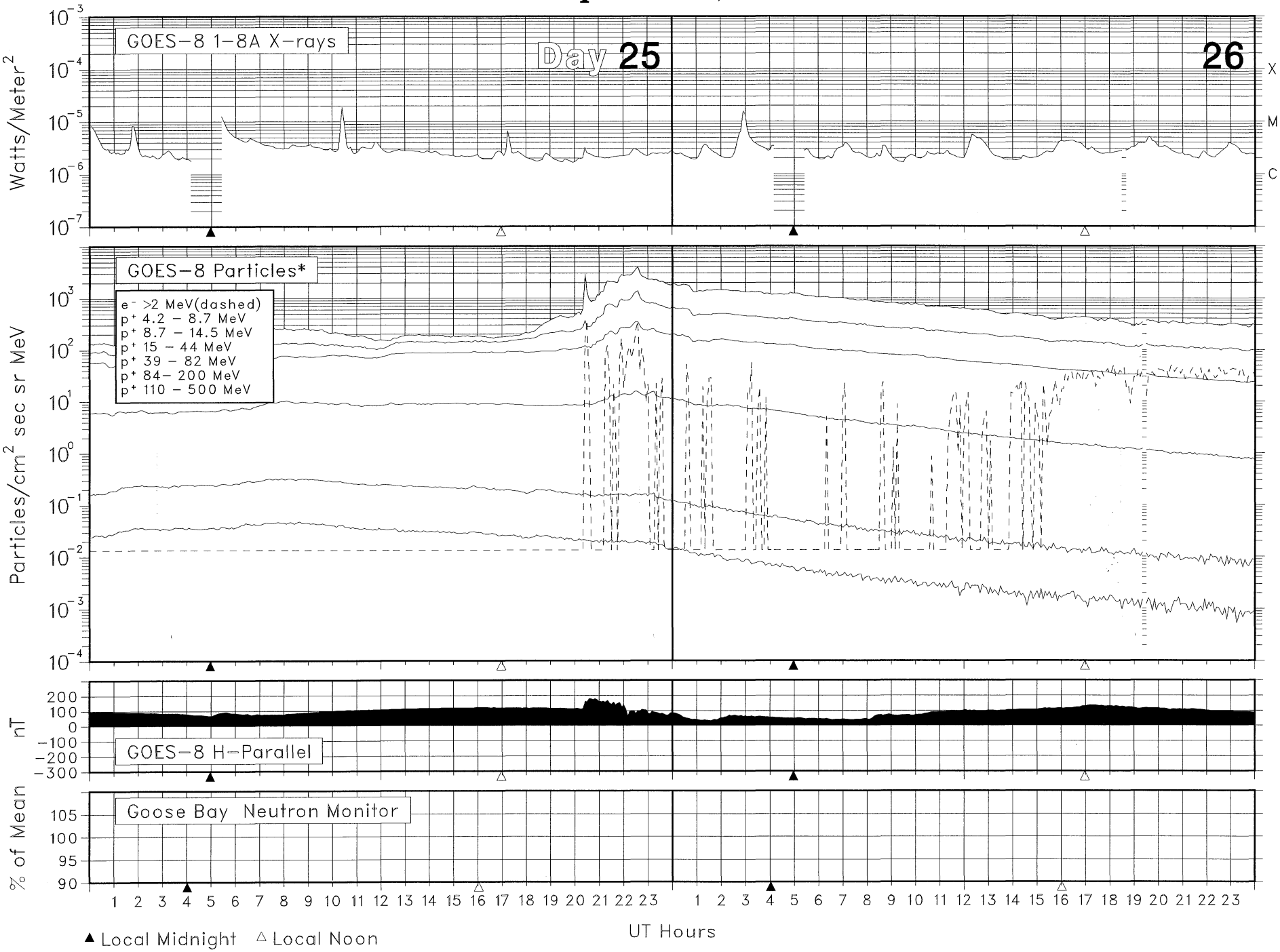
16 Sep 01



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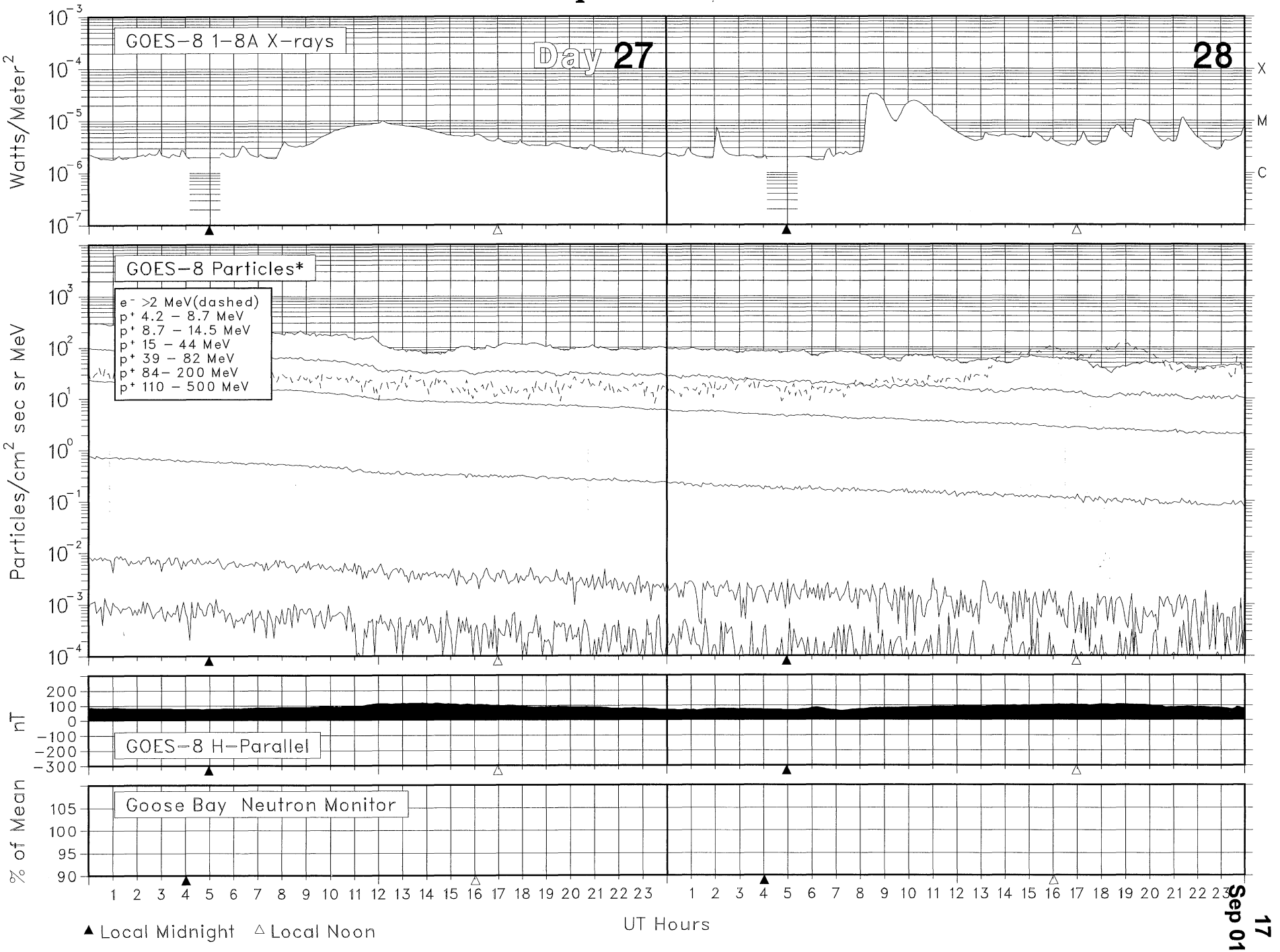
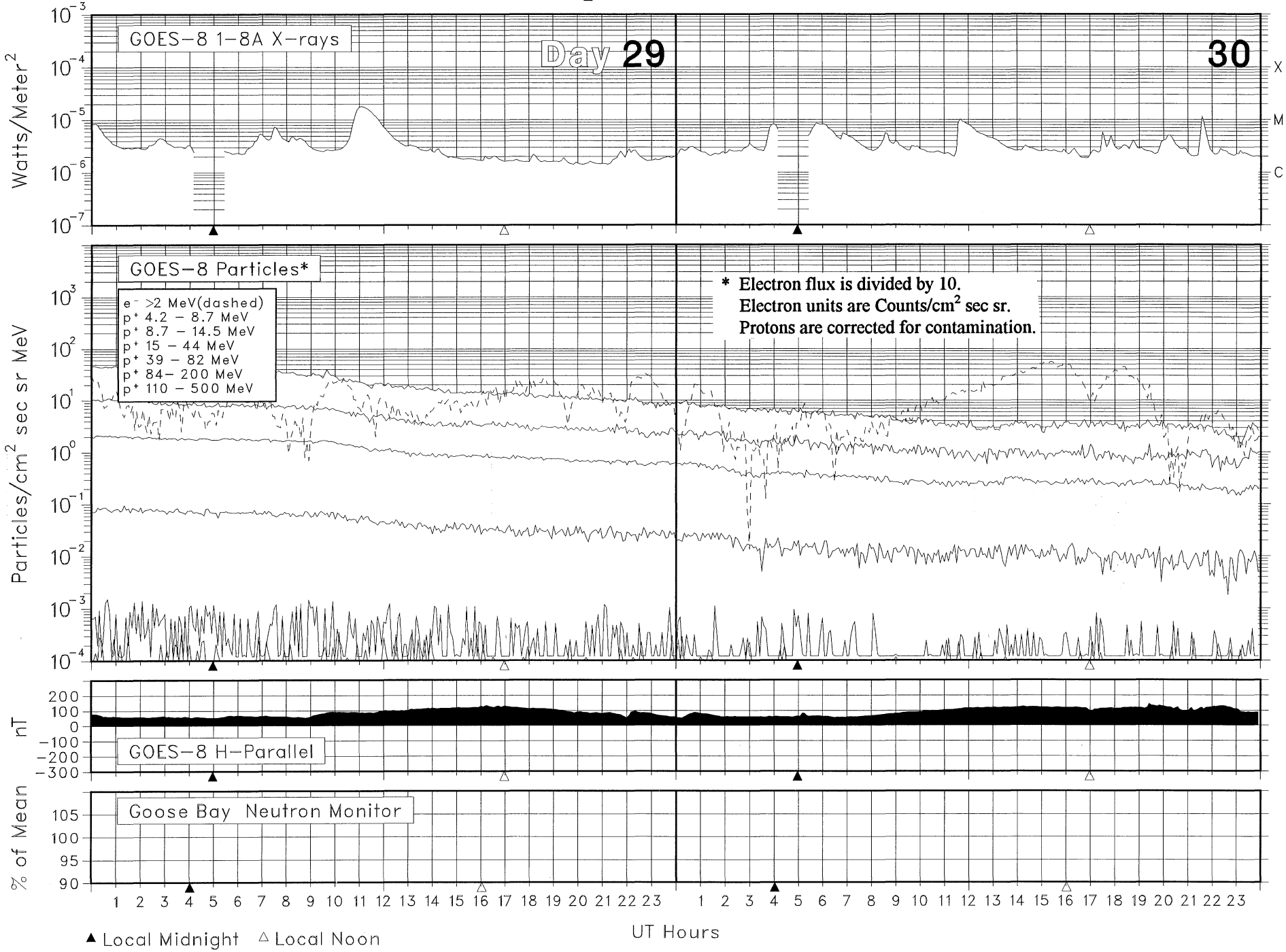


# SOLAR-TERRESTRIAL ENVIRONMENT
## September 2001

18 Sep 01



# A L E R T  P E R I O D S
## The International Space Environment Service

## SEPTEMBER 2001

| Julian Day | Date of Issue | Date of Obs | Wolf No. | 10-cm Solar Flux | A-index | Rgn No. | Location Lat | Location Lon | Flares Opt | Flares M | Flares X | Date of Fcst | Region Fcst(1) | Geoadvice(1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 244 | 01 | 31 | 142 | 189 | 17 | 9590 | S29 | W68 | 0 | 0 | 0 | 01 | Q | SOL: Active |
| | | | | | | 9591 | S20 | W39 | 1 | 0 | 0 | 01 | E | MAG: Active |
| | | | | | | 9595 | N17 | W70 | 0 | 0 | 0 | 01 | Q | PRO: Quiet |
| | | | | | | 9596 | N22 | E01 | 0 | 0 | 0 | 01 | Q | |
| | | | | | | 9599 | S18 | E11 | 1 | 0 | 0 | 01 | Q | |
| | | | | | | 9601 | N14 | E32 | 6 | 1 | 0 | 01 | E | |
| 245 | 02 | 01 | 153 | 184 | 9 | 9590 | S29 | W80 | 0 | 0 | 0 | 02 | Q | SOL: Active |
| | | | | | | 9591 | S20 | W46 | 1 | 0 | 0 | 02 | E | MAG: Active |
| | | | | | | 9596 | N21 | W12 | 0 | 0 | 0 | 02 | Q | PRO: Quiet |
| | | | | | | 9599 | S18 | W03 | 0 | 0 | 0 | 02 | Q | |
| | | | | | | 9601 | N14 | E18 | 3 | 0 | 0 | 02 | E | |
| | | | | | | 9602 | S08 | E30 | 0 | 0 | 0 | 02 | Q | |
| 246 | 03 | 02 | 141 | 183 | 8 | 9591 | S18 | W65 | 9 | 2 | 0 | 03 | E | SOL: Active |
| | | | | | | 9596 | N22 | W23 | 0 | 0 | 0 | 03 | Q | MAG: Quiet |
| | | | | | | 9599 | S18 | W14 | 0 | 0 | 0 | 03 | Q | PRO: Quiet |
| | | | | | | 9601 | N14 | E08 | 6 | 1 | 0 | 03 | E | |
| | | | | | | 9602 | S08 | E18 | 0 | 0 | 0 | 03 | Q | |
| | | | | | | 9603 | S08 | E64 | 0 | 0 | 0 | 03 | Q | |
| 247 | 04 | 03 | 168 | 199 | 21 | 9591 | S18 | W81 | 0 | 0 | 0 | 04 | E | SOL: Active |
| | | | | | | 9596 | N22 | W38 | 0 | 0 | 0 | 04 | Q | MAG: Active |
| | | | | | | 9599 | S18 | W31 | 0 | 0 | 0 | 04 | Q | PRO: Quiet |
| | | | | | | 9601 | N14 | W06 | 6 | 1 | 0 | 04 | E | |
| | | | | | | 9602 | S07 | E02 | 0 | 0 | 0 | 04 | Q | |
| | | | | | | 9603 | S09 | E49 | 0 | 0 | 0 | 04 | Q | |
| | | | | | | 9604 | S21 | W61 | 1 | 0 | 0 | 04 | E | |
| | | | | | | 9605 | S20 | E53 | 0 | 0 | 0 | 04 | Q | |
| | | | | | | 9606 | S17 | E57 | 0 | 0 | 0 | 04 | Q | |
| 248 | 05 | 04 | 168 | 218 | 17 | 9591 | S19 | W92 | 0 | 0 | 0 | 05 | E | SOL: Active |
| | | | | | | 9596 | N21 | W48 | 0 | 0 | 0 | 05 | Q | MAG: Quiet |
| | | | | | | 9599 | S18 | W47 | 0 | 0 | 0 | 05 | Q | PRO: Quiet |
| | | | | | | 9601 | N13 | W22 | 8 | 1 | 0 | 05 | E | |
| | | | | | | 9603 | S08 | E36 | 0 | 0 | 0 | 05 | Q | |
| | | | | | | 9604 | S22 | W76 | 1 | 0 | 0 | 05 | E | |
| | | | | | | 9605 | S19 | E39 | 1 | 0 | 0 | 05 | Q | |
| | | | | | | 9606 | S17 | E45 | 10 | 1 | 0 | 05 | E | |
| | | | | | | 9607 | S16 | E68 | 0 | 0 | 0 | 05 | E | |
| 249 | 06 | 05 | 175 | 218 | 6 | 9596 | N21 | W64 | 0 | 0 | 0 | 06 | Q | SOL: Active |
| | | | | | | 9599 | S17 | W61 | 0 | 0 | 0 | 06 | Q | MAG: Quiet |
| | | | | | | 9601 | N13 | W38 | 7 | 1 | 0 | 06 | E | PRO: Quiet |
| | | | | | | 9603 | S08 | E23 | 0 | 0 | 0 | 06 | Q | |
| | | | | | | 9604 | S20 | W90 | 0 | 0 | 0 | 06 | Q | |
| | | | | | | 9605 | S20 | E25 | 0 | 0 | 0 | 06 | Q | |
| | | | | | | 9606 | S17 | E32 | 3 | 1 | 0 | 06 | E | |
| | | | | | | 9607 | S15 | E55 | 0 | 0 | 0 | 06 | Q | |
| | | | | | | 9608 | S24 | E70 | 5 | 1 | 0 | 06 | E | |
| 250 | 07 | 06 | 204 | 222 | 5 | 9596 | N19 | W79 | 0 | 0 | 0 | 07 | Q | SOL: Active |
| | | | | | | 9599 | S18 | W76 | 0 | 0 | 0 | 07 | Q | MAG: Quiet |
| | | | | | | 9601 | N11 | W51 | 3 | 0 | 0 | 07 | E | PRO: Quiet |
| | | | | | | 9603 | S08 | E10 | 0 | 0 | 0 | 07 | Q | |
| | | | | | | 9605 | S18 | E12 | 1 | 0 | 0 | 07 | Q | |
| | | | | | | 9606 | S17 | E19 | 1 | 0 | 0 | 07 | E | |
| | | | | | | 9607 | S15 | E42 | 4 | 0 | 0 | 07 | Q | |
| | | | | | | 9608 | S26 | E56 | 4 | 0 | 0 | 07 | E | |
| | | | | | | 9609 | S07 | W53 | 0 | 0 | 0 | 07 | Q | |
| | | | | | | 9610 | S10 | E71 | 4 | 0 | 0 | 07 | Q | |
| 251 | 08 | 07 | 288 | 226 | 6 | 9596 | N22 | W91 | 0 | 0 | 0 | 08 | Q | SOL: Active |
| | | | | | | 9601 | N13 | W64 | 2 | 1 | 0 | 08 | E | MAG: Quiet |
| | | | | | | 9603 | S08 | W03 | 0 | 0 | 0 | 08 | Q | PRO: Quiet |
| | | | | | | 9605 | S19 | W02 | 0 | 0 | 0 | 08 | Q | |
| | | | | | | 9606 | S18 | E05 | 0 | 0 | 0 | 08 | Q | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 9607 | S16 | E29 | 0 | 0 | 0 | 08 | Q | |
| | | | | | | 9608 | S26 | E45 | 5 | 0 | 0 | 08 | E | |
| | | | | | | 9609 | S06 | W67 | 0 | 0 | 0 | 08 | Q | |
| | | | | | | 9610 | S13 | E60 | 2 | 0 | 0 | 08 | Q | |
| | | | | | | 9611 | N10 | W23 | 0 | 0 | 0 | 08 | Q | |
| | | | | | | 9612 | N22 | E40 | 0 | 0 | 0 | 08 | Q | |
| | | | | | | 9613 | S17 | W52 | 0 | 0 | 0 | 08 | Q | |
| 252 | 09 | 08 | 281 | 250 | 8 | 9601 | N13 | W79 | 3 | 1 | 0 | 09 | A | SOL: Active |
| | | | | | | 9605 | S18 | W15 | 1 | 0 | 0 | 09 | A | MAG: Quiet |
| | | | | | | 9606 | S18 | W07 | 2 | 0 | 0 | 09 | A | PRO: Quiet |
| | | | | | | 9607 | S17 | E17 | 3 | 0 | 0 | 09 | A | |
| | | | | | | 9608 | S26 | E33 | 7 | 1 | 0 | 09 | A | |
| | | | | | | 9609 | S06 | W85 | 0 | 0 | 0 | 09 | A | |
| | | | | | | 9610 | S14 | E48 | 0 | 0 | 0 | 09 | A | |
| | | | | | | 9611 | N10 | W37 | 3 | 0 | 0 | 09 | A | |
| | | | | | | 9612 | N22 | E27 | 0 | 0 | 0 | 09 | A | |
| | | | | | | 9613 | S17 | W68 | 8 | 0 | 0 | 09 | A | |
| | | | | | | 9614 | N13 | W19 | 0 | 0 | 0 | 09 | A | |
| | | | | | | 9615 | N12 | E64 | 0 | 0 | 0 | 09 | A | |
| 253 | 10 | 09 | 291 | 236 | 7 | 9601 | N13 | W93 | 0 | 0 | 0 | 10 | A | SOL: Major |
| | | | | | | 9605 | S19 | W30 | 0 | 0 | 0 | 10 | A | MAG: Quiet |
| | | | | | | 9606 | S18 | W22 | 0 | 0 | 0 | 10 | A | PRO: Quiet |
| | | | | | | 9607 | S17 | E03 | 2 | 1 | 0 | 10 | A | |
| | | | | | | 9608 | S27 | E18 | 11 | 5 | 0 | 10 | A | |
| | | | | | | 9610 | S14 | E34 | 0 | 0 | 0 | 10 | A | |
| | | | | | | 9611 | N10 | W51 | 0 | 0 | 0 | 10 | A | |
| | | | | | | 9612 | N21 | E12 | 0 | 0 | 0 | 10 | A | |
| | | | | | | 9613 | S17 | W83 | 0 | 0 | 0 | 10 | A | |
| | | | | | | 9614 | N15 | W34 | 0 | 0 | 0 | 10 | A | |
| | | | | | | 9615 | N11 | E49 | 0 | 0 | 0 | 10 | A | |
| 254 | 11 | 10 | 217 | 245 | 5 | 9605 | S19 | W45 | 0 | 0 | 0 | 11 | Q | SOL: Active |
| | | | | | | 9606 | S18 | W36 | 0 | 0 | 0 | 11 | Q | MAG: Quiet |
| | | | | | | 9607 | S17 | W09 | 1 | 0 | 0 | 11 | E | PRO: Quiet |
| | | | | | | 9608 | S27 | E07 | 9 | 0 | 0 | 11 | E | |
| | | | | | | 9610 | S13 | E22 | 4 | 0 | 0 | 11 | E | |
| | | | | | | 9611 | N10 | W64 | 0 | 0 | 0 | 11 | Q | |
| | | | | | | 9612 | N21 | E00 | 0 | 0 | 0 | 11 | Q | |
| | | | | | | 9615 | N11 | E36 | 0 | 0 | 0 | 11 | Q | |
| 255 | 12 | 11 | 180 | 250 | 12 | 9606 | S19 | W50 | 0 | 0 | 0 | 12 | Q | SOL: Active |
| | | | | | | 9607 | S17 | W24 | 0 | 0 | 0 | 12 | E | MAG: Active |
| | | | | | | 9608 | S27 | W07 | 7 | 0 | 0 | 12 | E | PRO: Quiet |
| | | | | | | 9610 | S14 | E08 | 7 | 0 | 0 | 12 | E | |
| | | | | | | 9611 | N09 | W76 | 0 | 0 | 0 | 12 | Q | |
| | | | | | | 9612 | N22 | W13 | 0 | 0 | 0 | 12 | Q | |
| | | | | | | 9616 | S12 | E80 | 1 | 1 | 0 | 12 | Q | |
| 256 | 13 | 12 | 228 | 235 | 14 | 9606 | S17 | W64 | 1 | 0 | 0 | 13 | Q | SOL: Active |
| | | | | | | 9607 | S16 | W39 | 0 | 0 | 0 | 13 | Q | MAG: Active |
| | | | | | | 9608 | S26 | W18 | 6 | 0 | 0 | 13 | E | PRO: Quiet |
| | | | | | | 9610 | S13 | W05 | 1 | 0 | 0 | 13 | E | |
| | | | | | | 9611 | N09 | W88 | 0 | 0 | 0 | 13 | Q | |
| | | | | | | 9612 | N22 | W26 | 0 | 0 | 0 | 13 | Q | |
| | | | | | | 9616 | S11 | E69 | 0 | 0 | 0 | 13 | E | |
| | | | | | | 9617 | N10 | E71 | 0 | 0 | 0 | 13 | Q | |
| 257 | 14 | 13 | 223 | 240 | 16 | 9606 | S17 | W79 | 0 | 0 | 0 | 14 | Q | SOL: Active |
| | | | | | | 9607 | S16 | W51 | 0 | 0 | 0 | 14 | Q | MAG: Active |
| | | | | | | 9608 | S25 | W33 | 7 | 0 | 0 | 14 | E | PRO: Quiet |
| | | | | | | 9610 | S13 | W18 | 4 | 0 | 0 | 14 | E | |
| | | | | | | 9612 | N19 | W40 | 2 | 0 | 0 | 14 | Q | |
| | | | | | | 9616 | S10 | E55 | 1 | 0 | 0 | 14 | E | |
| | | | | | | 9617 | N11 | E56 | 0 | 0 | 0 | 14 | Q | |
| | | | | | | 9618 | S21 | W26 | 0 | 0 | 0 | 14 | Q | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 9619 | N17 | E21 | 0 | 0 | 0 | 14 | Q | |
| 258 | 15 | 14 | 216 | 237 | 9 | 9607 | S18 | W63 | 0 | 0 | 0 | 15 | Q | SOL: Active |
| | | | | | | 9608 | S28 | W44 | 5 | 0 | 0 | 15 | E | MAG: Active |
| | | | | | | 9610 | S14 | W31 | 2 | 0 | 0 | 15 | E | PRO: Quiet |
| | | | | | | 9612 | N18 | W55 | 0 | 0 | 0 | 15 | Q | |
| | | | | | | 9616 | S10 | E44 | 4 | 1 | 0 | 15 | E | |
| | | | | | | 9617 | N11 | E43 | 0 | 0 | 0 | 15 | Q | |
| | | | | | | 9618 | S22 | W40 | 0 | 0 | 0 | 15 | Q | |
| | | | | | | 9619 | N16 | E08 | 0 | 0 | 0 | 15 | Q | |
| 259 | 16 | 15 | 183 | 219 | 14 | 9607 | S17 | W78 | 0 | 0 | 0 | 16 | Q | SOL: Active |
| | | | | | | 9608 | S28 | W54 | 3 | 1 | 0 | 16 | E | MAG: Active |
| | | | | | | 9610 | S13 | W46 | 0 | 0 | 0 | 16 | E | PRO: Quiet |
| | | | | | | 9612 | N20 | W68 | 0 | 0 | 0 | 16 | Q | |
| | | | | | | 9616 | S12 | E30 | 1 | 1 | 0 | 16 | E | |
| | | | | | | 9617 | N08 | E30 | 0 | 0 | 0 | 16 | Q | |
| | | | | | | 9618 | S20 | W53 | 0 | 0 | 0 | 16 | Q | |
| | | | | | | 9619 | N16 | W06 | 0 | 0 | 0 | 16 | Q | |
| 260 | 17 | 16 | 169 | 207 | 7 | 9608 | S29 | W64 | 9 | 1 | 0 | 17 | E | SOL: Active |
| | | | | | | 9610 | S12 | W59 | 1 | 0 | 0 | 17 | E | MAG: Quiet |
| | | | | | | 9612 | N17 | W80 | 1 | 0 | 0 | 17 | Q | PRO: Quiet |
| | | | | | | 9616 | S12 | E16 | 5 | 0 | 0 | 17 | E | |
| | | | | | | 9617 | N13 | E17 | 0 | 0 | 0 | 17 | Q | |
| | | | | | | 9618 | S21 | W68 | 0 | 0 | 0 | 17 | Q | |
| | | | | | | 9619 | N17 | W18 | 4 | 0 | 0 | 17 | Q | |
| | | | | | | 9620 | N12 | E70 | 1 | 0 | 0 | 17 | Q | |
| | | | | | | 9621 | N16 | E76 | 0 | 0 | 0 | 17 | Q | |
| 261 | 18 | 17 | 159 | 199 | 12 | 9608 | S30 | W75 | 6 | 2 | 0 | 18 | A | SOL: Active |
| | | | | | | 9610 | S12 | W75 | 0 | 0 | 0 | 18 | A | MAG: Quiet |
| | | | | | | 9616 | S12 | E03 | 7 | 2 | 0 | 18 | A | PRO: Quiet |
| | | | | | | 9617 | N08 | E04 | 0 | 0 | 0 | 18 | A | |
| | | | | | | 9619 | N15 | W29 | 0 | 0 | 0 | 18 | A | |
| | | | | | | 9620 | N13 | E57 | 0 | 0 | 0 | 18 | A | |
| | | | | | | 9621 | N16 | E62 | 1 | 0 | 0 | 18 | A | |
| | | | | | | 9622 | N12 | E34 | 0 | 0 | 0 | 18 | A | |
| | | | | | | 9623 | N21 | E46 | 0 | 0 | 0 | 18 | A | |
| | | | | | | 9624 | N03 | E70 | 0 | 0 | 0 | 18 | A | |
| 262 | 19 | 18 | 215 | 204 | 10 | 9608 | S30 | W84 | 1 | 1 | 0 | 19 | A | SOL: Active |
| | | | | | | 9610 | S12 | W91 | 0 | 0 | 0 | 19 | A | MAG: Active |
| | | | | | | 9616 | S13 | W11 | 2 | 0 | 0 | 19 | A | PRO: Quiet |
| | | | | | | 9617 | N08 | W10 | 0 | 0 | 0 | 19 | A | |
| | | | | | | 9619 | N16 | W42 | 0 | 0 | 0 | 19 | A | |
| | | | | | | 9620 | N12 | E44 | 1 | 1 | 0 | 19 | A | |
| | | | | | | 9621 | N14 | E49 | 1 | 0 | 0 | 19 | A | |
| | | | | | | 9622 | N12 | E20 | 0 | 0 | 0 | 19 | A | |
| | | | | | | 9623 | N21 | E32 | 0 | 0 | 0 | 19 | A | |
| | | | | | | 9624 | N04 | E56 | 0 | 0 | 0 | 19 | A | |
| | | | | | | 9625 | S30 | W12 | 0 | 0 | 0 | 19 | A | |
| | | | | | | 9626 | N25 | E47 | 0 | 0 | 0 | 19 | A | |
| | | | | | | 9627 | N05 | E73 | 0 | 0 | 0 | 19 | A | |
| | | | | | | 9628 | S17 | E79 | 1 | 1 | 0 | 19 | A | |
| 263 | 20 | 19 | 224 | 199 | 8 | 9616 | S13 | W24 | 3 | 0 | 0 | 20 | A | SOL: Active |
| | | | | | | 9617 | N10 | W21 | 0 | 0 | 0 | 20 | A | MAG: Active |
| | | | | | | 9619 | N16 | W55 | 0 | 0 | 0 | 20 | A | PRO: Quiet |
| | | | | | | 9620 | N12 | E30 | 3 | 0 | 0 | 20 | A | |
| | | | | | | 9621 | N14 | E36 | 2 | 0 | 0 | 20 | A | |
| | | | | | | 9622 | N13 | E08 | 0 | 0 | 0 | 20 | A | |
| | | | | | | 9623 | N22 | E18 | 0 | 0 | 0 | 20 | A | |
| | | | | | | 9624 | N03 | E42 | 0 | 0 | 0 | 20 | A | |
| | | | | | | 9625 | S30 | W24 | 0 | 0 | 0 | 20 | A | |
| | | | | | | 9626 | N26 | E25 | 0 | 0 | 0 | 20 | A | |
| | | | | | | 9627 | N04 | E58 | 0 | 0 | 0 | 20 | A | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 9628 | S18 | E64 | 3 | 0 | 0 | 20 | A | |
| | | | | | | 9629 | N26 | E38 | 0 | 0 | 0 | 20 | A | |
| 264 | 21 | 20 | 276 | 227 | 6 | 9616 | S12 | W37 | 0 | 0 | 0 | 21 | E | SOL: Active |
| | | | | | | 9619 | N17 | W67 | 0 | 0 | 0 | 21 | Q | MAG: Quiet |
| | | | | | | 9620 | N12 | E17 | 0 | 0 | 0 | 21 | E | PRO: Quiet |
| | | | | | | 9621 | N15 | E22 | 0 | 0 | 0 | 21 | E | |
| | | | | | | 9622 | N13 | W05 | 0 | 0 | 0 | 21 | Q | |
| | | | | | | 9623 | N21 | E04 | 0 | 0 | 0 | 21 | Q | |
| | | | | | | 9624 | N03 | E29 | 0 | 0 | 0 | 21 | Q | |
| | | | | | | 9625 | S28 | W36 | 0 | 0 | 0 | 21 | Q | |
| | | | | | | 9626 | N26 | E14 | 0 | 0 | 0 | 21 | Q | |
| | | | | | | 9627 | N04 | E43 | 0 | 0 | 0 | 21 | Q | |
| | | | | | | 9628 | S18 | E51 | 3 | 0 | 0 | 21 | E | |
| | | | | | | 9629 | N26 | E23 | 0 | 0 | 0 | 21 | Q | |
| | | | | | | 9630 | N27 | W36 | 0 | 0 | 0 | 21 | Q | |
| | | | | | | 9631 | N08 | W15 | 3 | 1 | 0 | 21 | E | |
| | | | | | | 9632 | S18 | E76 | 0 | 0 | 0 | 21 | Q | |
| 265 | 22 | 21 | 258 | 239 | 8 | 9616 | S12 | W51 | 1 | 0 | 0 | 22 | Q | SOL: Active |
| | | | | | | 9620 | N11 | E04 | 2 | 0 | 0 | 22 | E | MAG: Quiet |
| | | | | | | 9621 | N14 | E07 | 1 | 0 | 0 | 22 | Q | PRO: Quiet |
| | | | | | | 9622 | N12 | W18 | 3 | 0 | 0 | 22 | Q | |
| | | | | | | 9624 | N03 | E14 | 0 | 0 | 0 | 22 | Q | |
| | | | | | | 9625 | S30 | W51 | 0 | 0 | 0 | 22 | Q | |
| | | | | | | 9626 | N25 | W01 | 1 | 0 | 0 | 22 | Q | |
| | | | | | | 9627 | N03 | E30 | 0 | 0 | 0 | 22 | Q | |
| | | | | | | 9628 | S18 | E38 | 1 | 0 | 0 | 22 | E | |
| | | | | | | 9629 | N26 | E11 | 0 | 0 | 0 | 22 | Q | |
| | | | | | | 9631 | N09 | W24 | 5 | 0 | 0 | 22 | E | |
| | | | | | | 9632 | S17 | E56 | 3 | 0 | 0 | 22 | E | |
| 266 | 23 | 22 | 293 | 255 | 12 | 9616 | S12 | W64 | 2 | 0 | 0 | 23 | E | SOL: Active |
| | | | | | | 9620 | N12 | W10 | 0 | 0 | 0 | 23 | Q | MAG: Quiet |
| | | | | | | 9621 | N15 | W04 | 1 | 0 | 0 | 23 | Q | PRO: Quiet |
| | | | | | | 9622 | N12 | W32 | 6 | 0 | 0 | 23 | E | |
| | | | | | | 9624 | N02 | E00 | 0 | 0 | 0 | 23 | Q | |
| | | | | | | 9626 | N25 | W14 | 1 | 0 | 0 | 23 | Q | |
| | | | | | | 9627 | N02 | E17 | 1 | 0 | 0 | 23 | Q | |
| | | | | | | 9628 | S17 | E25 | 6 | 0 | 0 | 23 | E | |
| | | | | | | 9629 | N26 | W02 | 0 | 0 | 0 | 23 | Q | |
| | | | | | | 9631 | N08 | W43 | 1 | 0 | 0 | 23 | Q | |
| | | | | | | 9632 | S18 | E45 | 8 | 0 | 0 | 23 | E | |
| | | | | | | 9633 | N23 | E75 | 0 | 0 | 0 | 23 | Q | |
| | | | | | | 9634 | N12 | E76 | 0 | 0 | 0 | 23 | Q | |
| 267 | 24 | 23 | 275 | 259 | 20 | 9616 | S12 | W77 | 0 | 0 | 0 | 24 | Q | SOL: Active |
| | | | | | | 9620 | N12 | W23 | 0 | 0 | 0 | 24 | Q | MAG: Quiet |
| | | | | | | 9621 | N14 | W18 | 0 | 0 | 0 | 24 | E | PRO: Quiet |
| | | | | | | 9622 | N13 | W45 | 5 | 0 | 0 | 24 | E | |
| | | | | | | 9624 | N02 | W13 | 0 | 0 | 0 | 24 | Q | |
| | | | | | | 9627 | N01 | E03 | 0 | 0 | 0 | 24 | Q | |
| | | | | | | 9628 | S18 | E12 | 6 | 0 | 0 | 24 | E | |
| | | | | | | 9629 | N25 | W15 | 0 | 0 | 0 | 24 | Q | |
| | | | | | | 9631 | N07 | W57 | 0 | 0 | 0 | 24 | Q | |
| | | | | | | 9632 | S18 | E32 | 4 | 1 | 0 | 24 | E | |
| | | | | | | 9633 | N23 | E62 | 0 | 0 | 0 | 24 | Q | |
| | | | | | | 9634 | N12 | E68 | 0 | 0 | 0 | 24 | Q | |
| | | | | | | 9635 | N22 | E13 | 0 | 0 | 0 | 24 | Q | |
| 268 | 25 | 24 | 315 | 279 | 7 | 9616 | S09 | W88 | 1 | 0 | 0 | 25 | Q | SOL: Active |
| | | | | | | 9620 | N12 | W36 | 0 | 0 | 0 | 25 | Q | MAG: Quiet |
| | | | | | | 9621 | N14 | W32 | 1 | 0 | 0 | 25 | Q | PRO: IP |
| | | | | | | 9622 | N13 | W59 | 0 | 0 | 0 | 25 | Q | |
| | | | | | | 9624 | N03 | W26 | 0 | 0 | 0 | 25 | Q | |
| | | | | | | 9627 | N01 | W11 | 0 | 0 | 0 | 25 | Q | |
| | | | | | | 9628 | S18 | W01 | 11 | 0 | 0 | 25 | E | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 9629 | N26 | W28 | 0 | 0 | 0 | 25 | Q | |
| | | | | | | 9631 | N08 | W69 | 1 | 0 | 0 | 25 | Q | |
| | | | | | | 9632 | S19 | E19 | 2 | 0 | 1 | 25 | E | |
| | | | | | | 9633 | N22 | E50 | 0 | 0 | 0 | 25 | Q | |
| | | | | | | 9634 | N12 | E54 | 0 | 0 | 0 | 25 | Q | |
| | | | | | | 9635 | N21 | E02 | 1 | 0 | 0 | 25 | E | |
| | | | | | | 9636 | N12 | E65 | 5 | 0 | 0 | 25 | E | |
| | | | | | | 9637 | S14 | E71 | 2 | 0 | 0 | 25 | E | |
| 269 | 26 | 25 | 320 | 275 | 16 | 9620 | N12 | W50 | 0 | 0 | 0 | 26 | Q | SOL: Major |
| | | | | | | 9621 | N14 | W45 | 1 | 0 | 0 | 26 | Q | MAG: Major |
| | | | | | | 9622 | N13 | W73 | 0 | 0 | 0 | 26 | Q | PRO: IP |
| | | | | | | 9624 | N03 | W40 | 0 | 0 | 0 | 26 | Q | |
| | | | | | | 9627 | N01 | W24 | 0 | 0 | 0 | 26 | Q | |
| | | | | | | 9628 | S18 | W14 | 17 | 3 | 0 | 26 | E | |
| | | | | | | 9629 | N26 | W42 | 0 | 0 | 0 | 26 | Q | |
| | | | | | | 9631 | N09 | W85 | 0 | 0 | 0 | 26 | Q | |
| | | | | | | 9632 | S19 | E06 | 4 | 0 | 0 | 26 | E | |
| | | | | | | 9633 | N22 | E36 | 0 | 0 | 0 | 26 | Q | |
| | | | | | | 9634 | N12 | E41 | 0 | 0 | 0 | 26 | Q | |
| | | | | | | 9635 | N21 | W12 | 0 | 0 | 0 | 26 | Q | |
| | | | | | | 9636 | N13 | E54 | 2 | 0 | 0 | 26 | E | |
| | | | | | | 9637 | S15 | E59 | 0 | 0 | 0 | 26 | Q | |
| | | | | | | 9638 | N03 | E61 | 0 | 0 | 0 | 26 | Q | |
| 270 | 27 | 26 | 278 | 283 | 20 | 9620 | N12 | W64 | 1 | 0 | 0 | 27 | Q | SOL: Active |
| | | | | | | 9621 | N14 | W59 | 1 | 0 | 0 | 27 | Q | MAG: Active |
| | | | | | | 9622 | N13 | W86 | 0 | 0 | 0 | 27 | Q | PRO: IP |
| | | | | | | 9624 | N02 | W54 | 1 | 0 | 0 | 27 | Q | |
| | | | | | | 9627 | N01 | W37 | 1 | 0 | 0 | 27 | Q | |
| | | | | | | 9628 | S18 | W25 | 6 | 0 | 0 | 27 | E | |
| | | | | | | 9632 | S19 | W08 | 1 | 0 | 0 | 27 | E | |
| | | | | | | 9633 | N22 | E24 | 0 | 0 | 0 | 27 | Q | |
| | | | | | | 9634 | N12 | E24 | 1 | 0 | 0 | 27 | Q | |
| | | | | | | 9635 | N21 | W25 | 0 | 0 | 0 | 27 | Q | |
| | | | | | | 9636 | N14 | E41 | 3 | 0 | 0 | 27 | E | |
| | | | | | | 9637 | S15 | E46 | 1 | 0 | 0 | 27 | Q | |
| | | | | | | 9638 | N03 | E48 | 0 | 0 | 0 | 27 | Q | |
| | | | | | | 9639 | N04 | E36 | 0 | 0 | 0 | 27 | Q | |
| 271 | 28 | 27 | 279 | 270 | 11 | 9620 | N12 | W77 | 0 | 0 | 0 | 28 | Q | SOL: Active |
| | | | | | | 9621 | N14 | W72 | 0 | 0 | 0 | 28 | Q | MAG: Active |
| | | | | | | 9624 | N03 | W67 | 1 | 0 | 0 | 28 | Q | PRO: IP |
| | | | | | | 9627 | N00 | W49 | 0 | 0 | 0 | 28 | Q | |
| | | | | | | 9628 | S18 | W37 | 8 | 1 | 0 | 28 | E | |
| | | | | | | 9632 | S19 | W21 | 2 | 0 | 0 | 28 | E | |
| | | | | | | 9633 | N22 | E10 | 0 | 0 | 0 | 28 | Q | |
| | | | | | | 9634 | N12 | E11 | 3 | 0 | 0 | 28 | E | |
| | | | | | | 9635 | N21 | W38 | 1 | 0 | 0 | 28 | Q | |
| | | | | | | 9636 | N13 | E26 | 3 | 0 | 0 | 28 | E | |
| | | | | | | 9637 | S14 | E32 | 2 | 0 | 0 | 28 | Q | |
| | | | | | | 9638 | N03 | E35 | 0 | 0 | 0 | 28 | Q | |
| | | | | | | 9639 | N04 | E21 | 0 | 0 | 0 | 28 | Q | |
| | | | | | | 9640 | N10 | E67 | 0 | 0 | 0 | 28 | Q | |
| | | | | | | 9641 | S14 | E77 | 0 | 0 | 0 | 28 | Q | |
| 272 | 29 | 28 | 234 | 266 | 12 | 9620 | N12 | W90 | 0 | 0 | 0 | 29 | Q | SOL: Active |
| | | | | | | 9621 | N15 | W84 | 0 | 0 | 0 | 29 | Q | MAG: Quiet |
| | | | | | | 9624 | N03 | W80 | 0 | 0 | 0 | 29 | Q | PRO: IP |
| | | | | | | 9628 | S18 | W48 | 11 | 1 | 0 | 29 | E | |
| | | | | | | 9632 | S18 | W33 | 6 | 0 | 0 | 29 | E | |
| | | | | | | 9633 | N22 | W02 | 0 | 0 | 0 | 29 | Q | |
| | | | | | | 9634 | N12 | W02 | 5 | 1 | 0 | 29 | E | |
| | | | | | | 9635 | N21 | W51 | 1 | 0 | 0 | 29 | E | |
| | | | | | | 9636 | N14 | E13 | 2 | 1 | 0 | 29 | E | |
| | | | | | | 9637 | S15 | E18 | 5 | 1 | 0 | 29 | Q | |
| | | | | | | 9639 | N03 | E08 | 0 | 0 | 0 | 29 | Q | |

# A L E R T  P E R I O D S
## The International Space Environment Service

## SEPTEMBER 2001

| Julian Day | Date of Issue | Date of Obs | Wolf No. | 10-cm Solar Flux | A-index | Rgn No. | Location Lat | Location Lon | Flares Opt | Flares M | Flares X | Date of Fcst | Region Fcst(1) | Geoadvice(1) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 9640 | N10 | E56 | 0 | 0 | 0 | 29 | Q | |
| | | | | | | 9641 | S14 | E61 | 0 | 0 | 0 | 29 | Q | |
| 273 | 30 | 29 | 233 | 240 | 21 | 9624 | N04 | W93 | 0 | 0 | 0 | 30 | Q | SOL: Active |
| | | | | | | 9628 | S17 | W62 | 3 | 0 | 0 | 30 | E | MAG: Active |
| | | | | | | 9632 | S19 | W48 | 0 | 0 | 0 | 30 | E | PRO: No Fcst |
| | | | | | | 9633 | N22 | W16 | 0 | 0 | 0 | 30 | Q | |
| | | | | | | 9634 | N12 | W15 | 5 | 0 | 0 | 30 | Q | |
| | | | | | | 9635 | N22 | W65 | 1 | 0 | 0 | 30 | Q | |
| | | | | | | 9636 | N13 | W02 | 3 | 1 | 0 | 30 | E | |
| | | | | | | 9637 | S13 | E06 | 0 | 0 | 0 | 30 | E | |
| | | | | | | 9639 | N03 | W06 | 0 | 0 | 0 | 30 | Q | |
| | | | | | | 9640 | N10 | E41 | 0 | 0 | 0 | 30 | Q | |
| | | | | | | 9641 | S14 | E47 | 0 | 0 | 0 | 30 | Q | |
| | | | | | | 9642 | N03 | E71 | 0 | 0 | 0 | 30 | Q | |

(1) Region Forecast and Flare (SOL) Advice
- Q = Quiet (<50% probability of C-class flares)
- E = Eruptive (C-class flares expected, probability >=50%)
- A = Active (M-class flares expected, probability >=50%)
- M = Major (X-class flares expected, probability >=50%)
- P = Proton (Proton flares expected, probability >=50%)
- W = Warning (activity levels are expected to increase, but no numerical forecast given)
- / = No forecast available

Magnetic (MAG) Geoadvice

| | | |
|---|---|---|
| 'Quiet' | | |
| 'Active' | conditions expected | (A>=20 or K=4) |
| 'Minor' | storm expected | (A>=30 or K=5) |
| 'Major' | storm expected | (A>=50 or K>=6) |
| 'Severe' | storm expected | (A>=100 or K>=7) |
| 'IP' | magstorm in progress | (A>=30 or K>=4) |
| 'Warning' | (activity levels are expected to increase, but no numerical forecast given) | |
| '/' | no forecast available | |

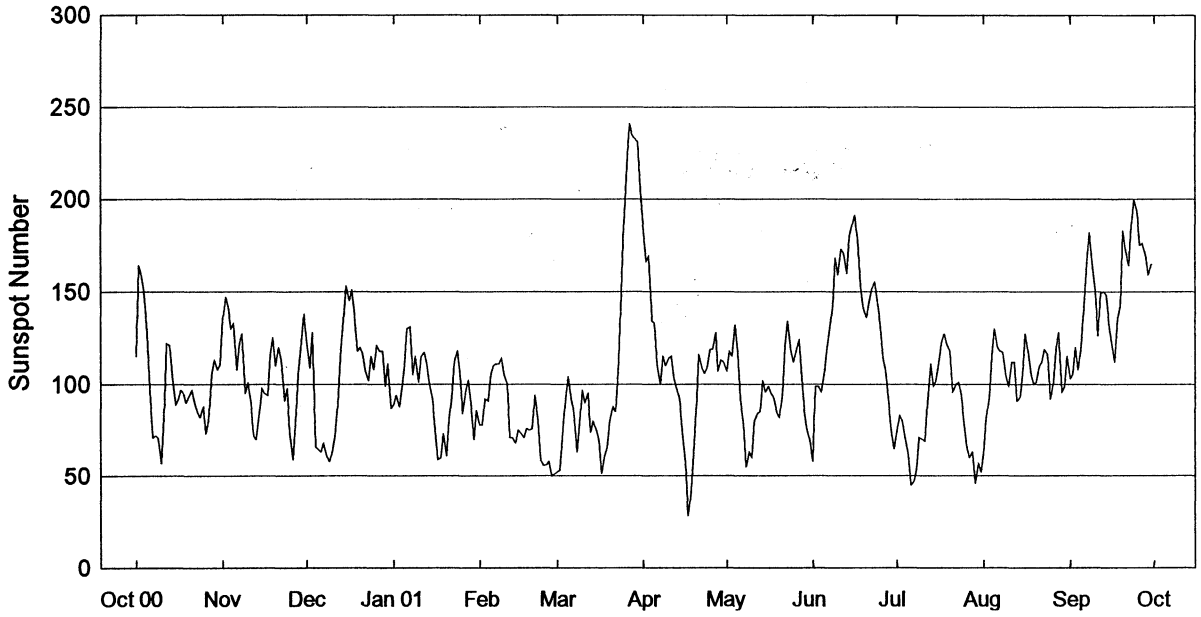
Proton (PRO) Geoadvice

| | | |
|---|---|---|
| 'Quiet' | | |
| 'Proton' | event expected | (10pfu at >10MeV) |
| 'Major' | proton event expected | (100pfu at >100 MeV) |
| 'IP' | proton event in progress | (>10 MeV) |
| 'Warning' | (activity levels are expected to increase, but no numerical forecast given) | |
| '/' | no forecast available | |

STRATWARM ALERTS - NONE

# International Relative Sunspot Numbers
# Oct 2000 - Sep 2001



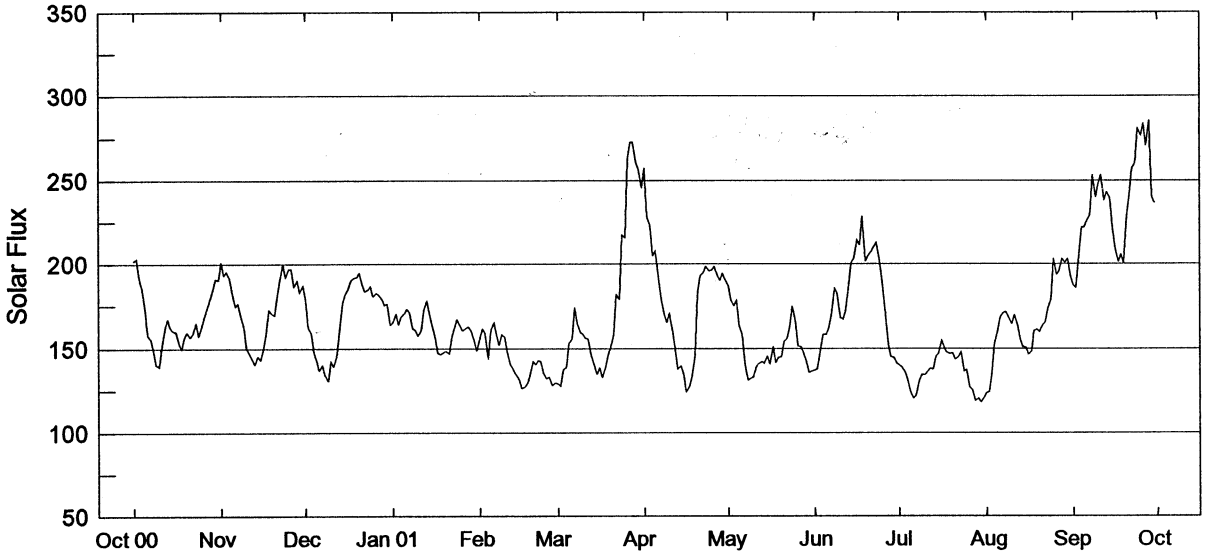



| Day | Oct 00 | Nov | Dec | Jan 01 | Feb | Mar | Apr | May | Jun | Jul* | Aug* | Sep* |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 115 | 140 | 116 | 89 | 78 | 52 | 186 | 107 | 58 | 74 | 62 | 103 |
| 2 | 153 | 147 | 109 | 94 | 78 | 53 | 166 | 118 | 99 | 83 | 81 | 106 |
| 3 | 159 | 141 | 118 | 88 | 92 | 75 | 169 | 115 | 99 | 80 | 93 | 120 |
| 4 | 150 | 130 | 72 | 98 | 91 | 92 | 134 | 132 | 96 | 71 | 115 | 108 |
| 5 | 128 | 133 | 65 | 110 | 105 | 104 | 133 | 118 | 106 | 62 | 130 | 120 |
| 6 | 97 | 108 | 57 | 130 | 110 | 91 | 110 | 92 | 119 | 45 | 120 | 141 |
| 7 | 66 | 122 | 68 | 131 | 111 | 85 | 100 | 79 | 129 | 47 | 118 | 166 |
| 8 | 72 | 127 | 57 | 105 | 111 | 63 | 115 | 55 | 142 | 54 | 117 | 182 |
| 9 | 71 | 95 | 58 | 115 | 114 | 79 | 110 | 63 | 168 | 71 | 104 | 166 |
| 10 | 57 | 101 | 62 | 101 | 105 | 97 | 114 | 60 | 159 | 70 | 99 | 150 |
| 11 | 82 | 90 | 72 | 115 | 100 | 90 | 115 | 80 | 173 | 69 | 112 | 126 |
| 12 | 122 | 72 | 89 | 117 | 71 | 95 | 103 | 84 | 171 | 90 | 112 | 149 |
| 13 | 121 | 70 | 114 | 111 | 71 | 74 | 98 | 85 | 160 | 111 | 91 | 150 |
| 14 | 104 | 84 | 135 | 100 | 68 | 80 | 92 | 102 | 180 | 99 | 93 | 148 |
| 15 | 83 | 98 | 153 | 92 | 75 | 75 | 75 | 96 | 186 | 102 | 106 | 130 |
| 16 | 92 | 95 | 145 | 75 | 73 | 70 | 58 | 99 | 191 | 113 | 127 | 121 |
| 17 | 97 | 94 | 151 | 59 | 71 | 51 | 28 | 95 | 178 | 123 | 117 | 112 |
| 18 | 95 | 116 | 138 | 60 | 76 | 61 | 38 | 93 | 153 | 127 | 106 | 136 |
| 19 | 90 | 125 | 118 | 73 | 75 | 66 | 62 | 85 | 141 | 122 | 100 | 143 |
| 20 | 94 | 110 | 127 | 61 | 76 | 80 | 86 | 82 | 136 | 118 | 101 | 183 |
| 21 | 97 | 120 | 116 | 81 | 94 | 88 | 116 | 95 | 144 | 96 | 110 | 173 |
| 22 | 89 | 113 | 107 | 93 | 81 | 85 | 109 | 121 | 151 | 100 | 112 | 164 |
| 23 | 85 | 91 | 102 | 112 | 59 | 113 | 106 | 134 | 155 | 101 | 119 | 186 |
| 24 | 82 | 98 | 115 | 118 | 56 | 149 | 109 | 118 | 145 | 96 | 116 | 200 |
| 25 | 88 | 74 | 108 | 106 | 56 | 186 | 119 | 112 | 131 | 79 | 92 | 193 |
| 26 | 73 | 59 | 121 | 84 | 58 | 218 | 119 | 118 | 114 | 66 | 101 | 175 |
| 27 | 80 | 84 | 118 | 97 | 50 | 241 | 128 | 124 | 107 | 60 | 119 | 176 |
| 28 | 106 | 106 | 118 | 102 | 51 | 235 | 107 | 103 | 89 | 63 | 128 | 170 |
| 29 | 113 | 123 | 110 | 90 | | 233 | 113 | 85 | 74 | 46 | 96 | 159 |
| 30 | 108 | 138 | 111 | 70 | | 231 | 112 | 75 | 65 | 57 | 99 | 165 |
| 31 | 111 | | 87 | 86 | | 205 | | 69 | | 52 | 115 | |
| Mean | 99.4 | 106.8 | 104.4 | 95.6 | 80.6 | 113.5 | 107.7 | 96.6 | 134.0 | 82.2 | 106.8 | 150.7 |

* = Provisional.

# Penticton 2800 MHz (10.7cm) Solar Flux
## Oct 2000 - Sep 2001

Adjusted to 1 AU




| Day | Oct00 | Nov | Dec | Jan 01 | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 201.9 | 201.2 | 179.3 | 165.3 | 156.2 | 129.0 | 257.2 | 187.4~ | 136.8 | 119.0 | 123.8 | 187.4 |
| 2 | 202.9 | 193.2 | 162.3 | 170.2 | 161.6 | 127.4 | 227.9 | 179.0 | 137.8 | 120.5 | 124.3 | 185.7 |
| 3 | 192.1 | 195.5 | 158.9 | 164.2 | 159.0 | 137.3 | 223.1 | 175.1 | 149.5 | 118.0 | 135.5 | 202.1 |
| 4 | 184.1 | 191.4 | 147.6 | 168.8 | 144.0 | 138.7 | 205.0 | 178.6 | 158.3 | 120.3 | 152.7 | 222.1 |
| 5 | 173.7 | 183.1 | 142.7 | 170.5 | 160.7 | 153.4 | 207.8* | 163.5 | 158.0 | 135.6 | 160.5 | 221.8 |
| 6 | 157.9 | 174.9 | 136.9 | 173.4 | 165.3 | 155.4 | 192.0~ | 157.8 | 162.4 | 120.3 | 168.3 | 225.6 |
| 7 | 155.3 | 176.6 | 139.9 | 170.9 | 159.6 | 174.0 | 180.0 | 140.9 | 169.8 | 121.8 | 171.0 | 229.5 |
| 8 | 148.6 | 169.5 | 134.1 | 161.5 | 152.3 | 164.8 | 169.7 | 131.1 | 185.7 | 130.5 | 171.5 | 253.1 |
| 9 | 140.4 | 163.0 | 130.7 | 160.8 | 158.1 | 159.2 | 165.4 | 131.9 | 182.4 | 134.4 | 167.8 | 239.5 |
| 10 | 139.1 | 150.4 | 142.1 | 157.4 | 156.5 | 158.0 | 170.4 | 133.0 | 168.0 | 134.3 | 164.7 | 247.8 |
| 11 | 150.8 | 146.6 | 139.2 | 160.5 | 147.4 | 155.8 | 160.3 | 139.4 | 167.4 | 136.3 | 169.5 | 252.9 |
| 12 | 161.9 | 143.6 | 145.2 | 172.5 | 140.9 | 155.7 | 149.8 | 141.0 | 171.6 | 138.3 | 164.0 | 238.1 |
| 13 | 167.2 | 140.6 | 159.5 | 178.3 | 137.8 | 145.6 | 137.8 | 141.9 | 187.1 | 137.7 | 155.5 | 242.6 |
| 14 | 162.3 | 145.4 | 176.5 | 170.6 | 134.6 | 140.7 | 139.6 | 141.2 | 200.9 | 145.4 | 151.1 | 239.3 |
| 15 | 160.1 | 143.2 | 181.9 | 163.8 | 131.8 | 134.7 | 135.1 | 145.2 | 203.2 | 146.8 | 150.5 | 221.7 |
| 16 | 159.8 | 150.7 | 184.4 | 156.6 | 126.5 | 138.5 | 124.3 | 140.9 | 214.3 | 154.7 | 146.2 | 209.3 |
| 17 | 153.0 | 159.6 | 190.4 | 147.0 | 126.8 | 132.9 | 127.1 | 150.8 | 211.2 | 150.4 | 148.4 | 201.1 |
| 18 | 149.9 | 172.9 | 191.6 | 146.6 | 129.0 | 138.5 | 133.0 | 141.5 | 228.5 | 147.7 | 159.9 | 205.7 |
| 19 | 156.5 | 170.7 | 192.2 | 147.7 | 134.0 | 145.7 | 145.8 | 144.6 | 201.7 | 146.9 | 161.3 | 200.6 |
| 20 | 159.3 | 169.6 | 194.8 | 148.3 | 142.3 | 152.1 | 182.2 | 144.9 | 205.0 | 147.2 | 159.8 | 228.7 |
| 21 | 156.5 | 180.9 | 188.2 | 146.7 | 140.5 | 158.2 | 193.0 | 153.8 | 206.9 | 143.5 | 163.9 | 240.5 |
| 22 | 158.6 | 190.1 | 183.8 | 157.1 | 142.7 | 181.8 | 194.6 | 155.8 | 210.3 | 144.9 | 165.2 | 257.0 |
| 23 | 164.8 | 200.1 | 184.7 | 162.0 | 142.2 | 178.9 | 198.6 | 162.8 | 213.0 | 147.8 | 173.4 | 260.2 |
| 24 | 157.5 | 192.1 | 186.7 | 167.2 | 134.6 | 217.5 | 195.8 | 174.7 | 201.3 | 136.7 | 178.7 | 281.0 |
| 25 | 162.0 | 197.0# | 180.9 | 163.4 | 132.2 | 215.7 | 196.3 | 166.1 | 188.4 | 137.5 | 203.2 | 276.6 |
| 26 | 168.9 | 197.0 | 182.6 | 160.5 | 132.8 | 262.6 | 198.7 | 151.3 | 173.5 | 127.2 | 193.8 | 284.0 |
| 27 | 173.7 | 186.6 | 181.4 | 161.8 | 128.1 | 272.4 | 193.3 | 150.8 | 152.8 | 125.1 | 195.9 | 270.6 |
| 28 | 179.7 | 190.3 | 179.3 | 162.6 | 129.4 | 272.6 | 190.4 | 146.9 | 144.9 | 119.0 | 203.1 | 285.5 |
| 29 | 184.5 | 183.2 | 175.5 | 160.5 | | 261.0 | 194.5 | 142.3 | 144.6 | 120.5 | 200.9 | 240.2 |
| 30 | 191.0 | 187.0 | 176.1 | 154.9 | | 256.3 | 190.7 | 136.0 | 141.2 | 118.0 | 203.0 | 236.3 |
| 31 | 190.5 | | 163.9 | 148.8 | | 245.3 | | 136.6 | | 120.3 | 192.2 | |
| Mean | 166.6 | 174.9 | 168.2 | 161.3 | 143.1 | 176.1 | 179.3 | 152.0 | 179.2 | 135.6 | 167.1 | 236.2 |

NOTE: #1800UT reading - burst IP at 2000UT;
~ 1700UT reading - burst IP at 2000UT; * 2300UT reading - burst IP at 2000UT.

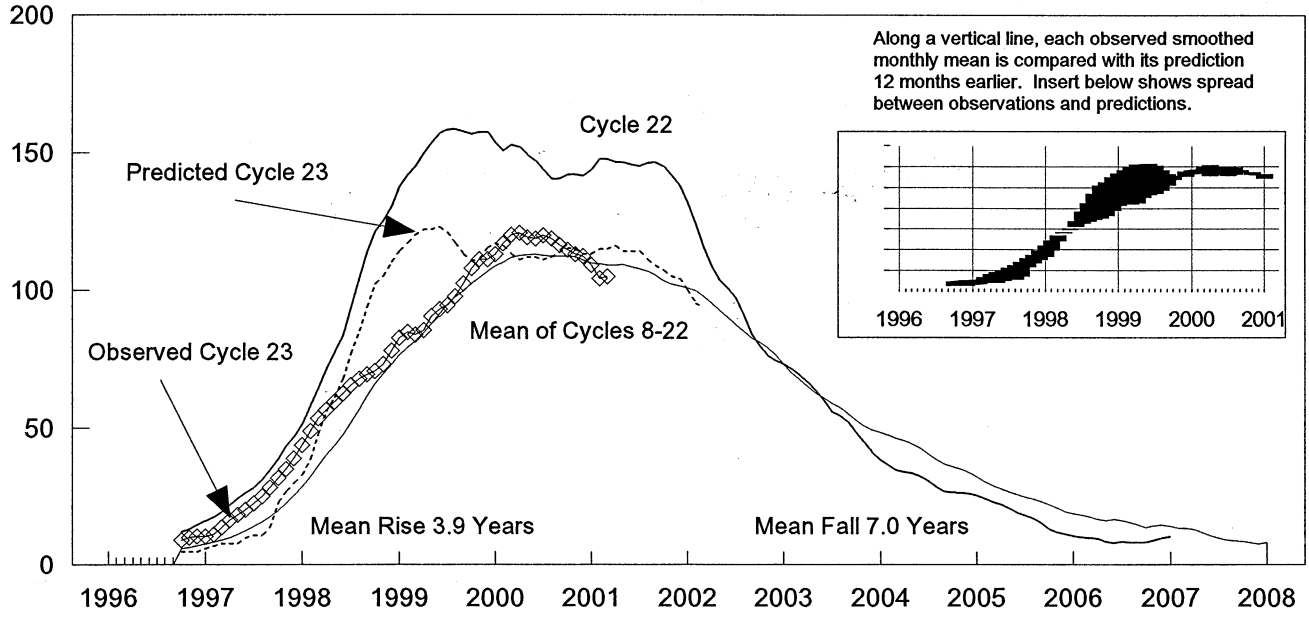
# DAILY SOLAR INDICES

September 2001

| Day | Day of Year | Bartels Cycle Day | Sunspot Numbers Int | Amer | Obs Flux Penticton (2800) | Solar Flux Adjusted to 1 Astronomical Unit — SGMR (15400) | SGMR (8800) | SGMR (4995) | Pentic (2800) | SGMR (2695) | SGMR (1415) | SGMR (610) | SGMR (410) | SGMR (245) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 244 | 22 | 103 | 122 | 184.1 | 573 | 313 | 225 | 187.4 | 171 | 117 | 58 | 41 | 19 |
| 2 | 245 | 23 | 106 | 126 | 182.5 | 594 | 326 | 234 | 185.7 | 172 | 120 | 62 | 42 | 40 |
| 3 | 246 | 24 | 120 | 130 | 198.7 | 569 | 321 | 245 | 202.1 | 183 | 129 | 62 | 40 | 23 |
| 4 | 247 | 25 | 108 | 130 | 218.4 | 605 | 374 | 286 | 222.1 | 200 | 134 | 60 | 43 | 31 |
| 5 | 248 | 26 | 120 | 145 | 218.3 | 613 | 370 | 274 | 221.8 | 203 | 135 | 65 | 42 | 20 |
| 6 | 249 | 27 | 141 | 171 | 222.2 | 604 | 362 | 288 | 225.6 | 210 | 134 | 60 | 44 | 20 |
| 7 | 250 | 1 | 166 | 206 | 226.1 | 597 | 358 | 294 | 229.5 | 215 | 141 | 61 | 45 | 34 |
| 8 | 251 | 2 | 182 | 208 | 249.5 | 604 | 361 | 298 | 253.1 | 231 | 143 | 57 | 40 | 20 |
| 9 | 252 | 3 | 166 | 190 | 236.2 | 604 | 389 | 317 | 239.5 | 227 | 145 | 57 | 38 | 18 |
| 10 | 253 | 4 | 150 | 176 | 244.5 | 592 | 358 | 296 | 247.8 | 223 | 141 | 59 | 46 | 19 |
| 11 | 254 | 5 | 126 | 161 | 249.7 | 597 | 366 | 305 | 252.9 | 239 | 147 | 63 | 47 | 26 |
| 12 | 255 | 6 | 149 | 170 | 235.1 | 599 | 369 | 301 | 238.1 | 225 | 143 | 61 | 39 | 17 |
| 13 | 256 | 7 | 150 | 184 | 239.7 | 586 | 355 | 299 | 242.6 | 224 | 140 | 56 | 39 | 18 |
| 14 | 257 | 8 | 148 | 168 | 236.6 | 554 | 369 | 302 | 239.3 | 227 | 138 | 53 | 38 | 65 |
| 15 | 258 | 9 | 130 | 149 | 219.3 | 593 | 361 | 272 | 221.7 | 212 | 135 | 58 | 39 | 56 |
| 16 | 259 | 10 | 121 | 135 | 207.1 | 618 | 353 | 271 | 209.3 | 200 | 131 | 61 | 39 | 19 |
| 17 | 260 | 11 | 112 | 125 | 199.1 | 597 | 336 | 247 | 201.1 | 180 | 125 | 65 | 42 | 23 |
| 18 | 261 | 12 | 136 | 151 | 203.8 | 612 | 345 | 249 | 205.7 | 186 | 131 | 73 | 60 | 32 |
| 19 | 262 | 13 | 143 | 157 | 198.8 | 586 | 342 | 255 | 200.6 | 198 | 132 | 61 | 39 | 19 |
| 20 | 263 | 14 | 183 | 193 | 226.8 | 574 | 349 | 279 | 228.7 | 206 | 138 | 71 | 48 | 69 |
| 21 | 264 | 15 | 173 | 192 | 238.6 | 583 | 364 | 291 | 240.5 | 230 | 146 | 64 | 47 | 25 |
| 22 | 265 | 16 | 164 | 206 | 255.2 | 588 | 366 | 313 | 257.0 | 233 | 153 | 55 | 43 | 31 |
| 23 | 266 | 17 | 186 | 221 | 258.5 | 592 | 359 | 313 | 260.2 | 238 | 154 | 61 | 46 | 44 |
| 24 | 267 | 18 | 200 | 211 | 279.3 | 605 | 433 | 359 | 281.0 | 264 | 165 | 61 | 46 | 22 |
| 25 | 268 | 19 | 193 | 219 | 275.1 | 605 | 433 | 359 | 276.6 | 264 | 165 | 61 | 46 | 22 |
| 26 | 269 | 20 | 175 | 201 | 282.6 | 650 | 420 | 345 | 284.0 | 260 | 166 | 66 | 47 | 28 |
| 27 | 270 | 21 | 176 | 191 | 269.5 | 622 | 438 | 343 | 270.6 | 256 | 170 | 73 | 43 | 20 |
| 28 | 271 | 22 | 170 | 193 | 284.5 | 569 | 405 | 335 | 285.5 | 258 | 164 | 63 | 47 | 27 |
| 29 | 272 | 23 | 159 | 186 | 239.5 | 600 | 373 | 301 | 240.2 | 221 | 148 | 68 | 42 | 22 |
| 30 | 273 | 24 | 165 | 183 | 235.8 | 599 | 311 | 292 | 236.3 | 221 | 150 | 65 | 43 | 34 |
| MEAN | | | 150.7 | 173.3 | 233.8 | 596 | 365 | 292 | 236.2 | 219 | 142 | 62 | 43 | 28 |

The International and American sunspot numbers shown above are preliminary values.
NOTE: Radio flux values are from Sagamore Hill, Massachusetts, USA.

## Cycle 23 Smoothed Sunspot Numbers: Observed and Predicted




### Smoothed Sunspot Numbers (Observed and Predicted) for Parts of Solar Cycles 22 and 23

| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Avg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1994 | 37 | 35 | 34 | 34 | 33 | 31 | 29 | 27 | 27 | 27 | 26 | 26 | 31 |
| 1995 | 24 | 23 | 22 | 21 | 19 | 18 | 17 | 15 | 13 | 12 | 11 | 11 | 17 |
| 1996 | 10 | 10 | 10 | 9 | 8* | 9 | 8 | 8 | 8 | 9** | 10 | 10 | 8 |
| 1997 | 11 | 11 | 14 | 17 | 18 | 20 | 23 | 25 | 28 | 32 | 35 | 39 | 23 |
| 1998 | 44 | 49 | 53 | 57 | 59 | 63 | 65 | 68 | 69 | 71 | 73 | 78 | 62 |
| 1999 | 83 | 85 | 84 | 85 | 90 | 93 | 94 | 98 | 102 | 108 | 111 | 111 | 95 |
| 2000 | 113 | 117 | 120 | 121+ | 119 | 119 | 120 | 119 | 116 | 115 | 113 | 112 | 107 |
| 2001 | 109 | 104 | 105 | 104 | 104 | 103 | 102 | 102 | 101 | 100 | 99 | 98 | 103 |
| | | | | (6) | (12) | (13) | (12) | (14) | (16) | (17) | (18) | (18) | (11) |
| 2002 | 97 | 96 | 94 | 92 | 90 | 88 | 86 | 83 | 81 | 79 | 76 | 74 | 86 |
| | (19) | (20) | (22) | (21) | (21) | (20) | (20) | (20) | (20) | (20) | (20) | (17) | (20) |

Solar Cycle 22 | Solar Cycle 23 | Min, Max, and Predictions

*** May 1996 marks Cycle 22's mathematical minimum. ** October 1996 marks the consensus minimum NGDC is now using.**

**+ April 2000 marks Cycle 23 maximum.**

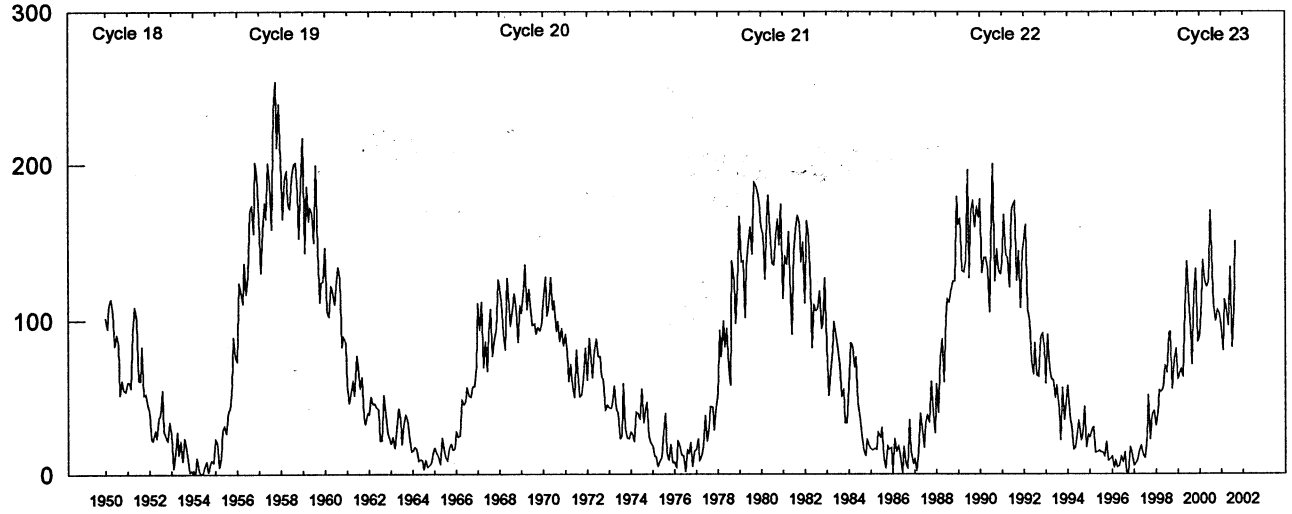
**Observed and Predicted Numbers.** For the end of Cycle 22, and the rise and decline of Cycle 23, the table above lists observed smoothed sunspot numbers up to the one that includes the most recent monthly mean. We based these smoothed values on final monthly means through Jun 2001 and on provisional numbers thereafter. Table entries with numbers in parentheses below them denote predictions by the McNish-Lincoln method. (See page 9 in the Jul 1987 supplement to *Solar-Geophysical Data.*) Adding the number in parentheses to the predicted value generates the upper limit of the 90% confidence interval. Subtracting the number from the predicted value generates the lower limit. Consider, for example, the March 2002 prediction. There exists a 90% chance that in March 2002, the actual smoothed number will fall somewhere between 72 and 116.

**Points to Ponder.** The McNish-Lincoln prediction method generates useful estimates of smoothed, monthly mean sunspot numbers for no more than 12 months ahead. Beyond 12 months, the predictions regress toward the mean of all 15 cycles of observations used in the computation. Moreover, the method remains very sensitive to the date defining the onset of the current cycle, that is, to the date of the most recent sunspot minimum. The new cycle predictions tabulated above are based on the consensus minimum value of 8.8 that occurred in October 1996.

**Note: Please visit http://www.sec.noaa.gov for solar minimum and Cycle 23 discussions.**

# Mean Monthly Sunspot Numbers
# Jan 1950 - Sep 2001






| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Mean | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1950 | 101.6 | 94.8 | 109.7 | 113.4 | 106.2 | 83.6 | 91.0 | 85.2 | 51.3 | 61.4 | 54.8 | 54.1 | 83.9 | |
| 1951 | 59.9 | 59.9 | 55.9 | 92.9 | 108.5 | 100.6 | 61.5 | 61.0 | 83.1 | 51.6 | 52.4 | 45.8 | 69.4 | |
| 1952 | 40.7 | 22.7 | 22.0 | 29.1 | 23.4 | 36.4 | 39.3 | 54.9 | 28.2 | 23.8 | 22.1 | 34.3 | 31.5 | |
| 1953 | 26.5 | 3.9 | 10.0 | 27.8 | 12.5 | 21.8 | 8.6 | 23.5 | 19.3 | 8.2 | 1.6 | 2.5 | 13.9 | |
| 1954 | 0.2 | 0.5 | 10.9 | 1.8 | 0.8 | 0.2 | 4.8 | 8.4 | 1.5 | 7.0 | 9.2 | 7.6 | 4.4 | m |
| 1955 | 23.1 | 20.8 | 4.9 | 11.3 | 28.9 | 31.7 | 26.7 | 40.7 | 42.7 | 58.5 | 89.2 | 76.9 | 38.0 | |
| 1956 | 73.6 | 124.0 | 118.4 | 110.7 | 136.6 | 116.6 | 129.1 | 169.6 | 173.2 | 155.3 | 201.3 | 192.1 | 141.7 | |
| 1957 | 165.0 | 130.2 | 157.4 | 175.2 | 164.6 | 200.7 | 187.2 | 158.0 | 235.8 | 253.8 | 210.9 | 239.4 | 190.2 | M |
| 1958 | 202.5 | 164.9 | 190.7 | 196.0 | 175.3 | 171.5 | 191.4 | 200.2 | 201.2 | 181.5 | 152.3 | 187.6 | 184.8 | |
| 1959 | 217.4 | 143.1 | 185.7 | 163.3 | 172.0 | 168.7 | 149.6 | 199.6 | 145.2 | 111.4 | 124.0 | 125.0 | 159.0 | |
| 1960 | 146.3 | 106.0 | 102.2 | 122.0 | 119.6 | 110.2 | 121.7 | 134.1 | 127.2 | 82.8 | 89.6 | 85.6 | 122.3 | |
| 1961 | 57.9 | 46.1 | 53.0 | 61.4 | 51.0 | 77.4 | 70.2 | 55.8 | 63.6 | 37.7 | 32.6 | 39.9 | 53.9 | |
| 1962 | 38.7 | 50.3 | 45.6 | 46.4 | 43.7 | 42.0 | 21.8 | 21.8 | 51.3 | 39.5 | 26.9 | 23.2 | 37.6 | |
| 1963 | 19.8 | 24.4 | 17.1 | 29.3 | 43.0 | 35.9 | 19.6 | 33.2 | 38.8 | 35.3 | 23.4 | 14.9 | 27.9 | |
| 1964 | 15.3 | 17.7 | 16.5 | 8.6 | 9.5 | 9.1 | 3.1 | 9.3 | 4.7 | 6.1 | 7.4 | 15.1 | 10.2 | m |
| 1965 | 17.5 | 14.2 | 11.7 | 6.8 | 24.1 | 15.9 | 11.9 | 8.9 | 16.8 | 20.1 | 15.8 | 17.0 | 15.1 | |
| 1966 | 28.2 | 24.4 | 25.3 | 48.7 | 45.3 | 47.7 | 56.7 | 51.2 | 50.2 | 57.2 | 57.2 | 70.4 | 47.0 | |
| 1967 | 110.9 | 93.6 | 111.8 | 69.5 | 86.5 | 67.3 | 91.5 | 107.2 | 76.8 | 88.2 | 94.3 | 126.4 | 93.8 | |
| 1968 | 121.8 | 111.9 | 92.2 | 81.2 | 127.2 | 110.3 | 96.1 | 109.3 | 117.2 | 107.7 | 86.0 | 109.8 | 105.9 | M |
| 1969 | 104.4 | 120.5 | 135.8 | 106.8 | 120.0 | 106.0 | 96.8 | 98.0 | 91.3 | 95.7 | 93.5 | 97.9 | 105.5 | |
| 1970 | 111.5 | 127.8 | 102.9 | 109.5 | 127.5 | 106.8 | 112.5 | 93.0 | 99.5 | 86.6 | 95.2 | 83.5 | 104.5 | |
| 1971 | 91.3 | 79.0 | 60.7 | 71.8 | 57.5 | 49.8 | 81.0 | 61.4 | 50.2 | 51.7 | 63.2 | 82.2 | 66.6 | |
| 1972 | 61.5 | 88.4 | 80.1 | 63.2 | 80.5 | 88.0 | 76.5 | 76.8 | 64.0 | 61.3 | 41.6 | 45.3 | 68.9 | |
| 1973 | 43.4 | 42.9 | 46.0 | 57.7 | 42.4 | 39.5 | 23.1 | 25.6 | 59.3 | 30.7 | 23.9 | 23.3 | 38.0 | |
| 1974 | 27.6 | 26.0 | 21.3 | 40.3 | 39.5 | 36.0 | 55.8 | 33.6 | 40.2 | 47.1 | 25.0 | 20.5 | 34.5 | |
| 1975 | 18.9 | 11.5 | 11.5 | 5.1 | 9.0 | 11.4 | 28.2 | 39.7 | 13.9 | 9.1 | 19.4 | 7.8 | 15.5 | |
| 1976 | 8.1 | 4.3 | 21.9 | 18.8 | 12.4 | 12.2 | 1.9 | 16.4 | 13.5 | 20.6 | 5.2 | 15.3 | 12.6 | m |
| 1977 | 16.4 | 23.1 | 8.7 | 12.9 | 18.6 | 38.5 | 21.4 | 30.1 | 44.0 | 43.8 | 29.1 | 43.2 | 27.5 | |
| 1978 | 51.9 | 93.6 | 76.5 | 99.7 | 82.7 | 95.1 | 70.4 | 58.1 | 138.2 | 125.1 | 97.9 | 122.7 | 92.5 | |
| 1979 | 166.6 | 137.5 | 138.0 | 101.5 | 134.4 | 149.5 | 159.4 | 142.2 | 188.4 | 186.2 | 183.3 | 176.3 | 155.4 | M |
| 1980 | 159.6 | 155.0 | 126.2 | 164.1 | 179.9 | 157.3 | 136.3 | 135.4 | 155.0 | 164.7 | 147.9 | 174.4 | 154.6 | |
| 1981 | 114.0 | 141.3 | 135.5 | 156.4 | 127.5 | 90.9 | 143.8 | 158.7 | 167.3 | 162.4 | 137.5 | 150.1 | 140.4 | |
| 1982 | 111.2 | 163.6 | 153.8 | 122.0 | 82.2 | 110.4 | 106.1 | 107.6 | 118.8 | 94.7 | 98.1 | 127.0 | 115.9 | |
| 1983 | 84.3 | 51.0 | 66.5 | 80.7 | 99.2 | 91.1 | 82.2 | 71.8 | 50.3 | 55.8 | 33.3 | 33.4 | 66.6 | |
| 1984 | 57.0 | 85.4 | 83.5 | 69.7 | 76.4 | 46.1 | 37.4 | 25.5 | 15.7 | 12.0 | 22.8 | 18.7 | 45.9 | |
| 1985 | 16.5 | 15.9 | 17.2 | 16.2 | 27.5 | 24.2 | 30.7 | 11.1 | 3.9 | 18.6 | 16.2 | 17.3 | 17.9 | |
| 1986 | 2.5 | 23.2 | 15.1 | 18.5 | 13.7 | 1.1 | 18.1 | 7.4 | 3.8 | 35.4 | 15.2 | 6.8 | 13.4 | m |
| 1987 | 10.4 | 2.4 | 14.7 | 39.6 | 33.0 | 17.4 | 33.0 | 38.7 | 33.9 | 60.6 | 39.9 | 27.1 | 29.4 | |
| 1988 | 59.0 | 40.0 | 76.2 | 88.0 | 60.1 | 101.8 | 113.8 | 111.6 | 120.1 | 125.1 | 125.1 | 179.2 | 100.2 | |
| 1989 | 161.3 | 165.1 | 131.4 | 130.6 | 138.5 | 196.2 | 126.9 | 168.9 | 176.7 | 159.4 | 173.0 | 165.5 | 157.6 | M |
| 1990 | 177.3 | 130.5 | 140.3 | 140.3 | 132.2 | 105.4 | 149.4 | 200.3 | 125.2 | 145.5 | 131.4 | 129.7 | 142.6 | |
| 1991 | 136.9 | 167.5 | 141.9 | 140.0 | 121.3 | 169.7 | 173.7 | 176.3 | 125.3 | 144.1 | 108.2 | 144.4 | 145.7 | |
| 1992 | 150.0 | 161.1 | 106.7 | 99.8 | 73.8 | 65.2 | 85.7 | 64.5 | 63.9 | 88.7 | 91.8 | 82.6 | 94.3 | |
| 1993 | 59.3 | 91.0 | 69.8 | 62.2 | 61.3 | 49.8 | 57.9 | 42.2 | 22.4 | 56.4 | 35.6 | 48.9 | 54.6 | |
| 1994 | 57.8 | 35.5 | 31.7 | 16.1 | 17.8 | 28.0 | 35.1 | 22.5 | 25.7 | 44.0 | 18.0 | 26.2 | 29.9 | |
| 1995 | 24.2 | 29.9 | 31.1 | 14.0 | 14.5 | 15.6 | 14.5 | 14.3 | 11.8 | 21.1 | 9.0 | 10.0 | 17.5 | |
| 1996 | 11.5 | 4.4 | 9.2 | 4.8 | 5.5 | 11.8 | 8.2 | 14.4 | 1.6 | 0.9 | 17.9 | 13.3 | 8.6 | m |
| 1997 | 5.7 | 7.6 | 8.7 | 15.5 | 18.5 | 12.7 | 10.4 | 24.4 | 51.3 | 22.8 | 39.0 | 41.2 | 21.5 | |
| 1998 | 31.9 | 40.3 | 54.8 | 53.4 | 56.3 | 70.7 | 66.6 | 92.2 | 92.9 | 55.5 | 74.0 | 81.9 | 64.3 | |
| 1999 | 62.0 | 66.3 | 68.8 | 63.7 | 106.4 | 137.7 | 113.5 | 93.7 | 71.5 | 116.7 | 133.2 | 84.6 | 93.2 | |
| 2000 | 90.1 | 112.9 | 138.5 | 125.5 | 121.6 | 124.9 | 170.1 | 130.5 | 109.7 | 99.4 | 106.8 | 104.4 | 119.6 | M |
| 2001 | 95.6 | 80.6 | 113.5 | 107.7 | 96.6 | 134.0 | 82.2 | 106.8 | 150.7 | | | | 107.5 | |

Values are preliminary after Jun 01. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Imp See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GOES | 01 | 0828 | 0834 | 0842 | N13 | E30 | 9601 | | | 14 | SF | C 1.9 | | | | | | 1.3E-03 |
| LEAR | | 0831 | 0833 | 0838 | N13 | E30 | 9601 | 09 | 3.6 | 7 | SF | | 3 | E | | 13 | | F |
| GOES | | 1239 | 1254 | 1302 | N17 | E27 | 9601 | | | 23 | SF | C 1.6 | | | | | | 2.0E-03 |
| RAMY | | 1255 | 1255 | 1306 | N17 | E27 | 9601 | 09 | 3.6 | 11 | SF | | 3 | E | | 10 | | |
| GOES | | 1331 | 1335 | 1348 | N16 | E26 | 9601 | | | 17 | SF | C 1.5 | | | | | | 1.4E-03 |
| HOLL | | 1332 | 1334 | 1401 | N12 | E26 | 9601 | 09 | 3.5 | 29 | SF | | 3 | E | | 66 | | F |
| RAMY | | 1336 | 1336 | 1350 | N16 | E26 | 9601 | 09 | 3.5 | 14 | SF | | 3 | E | | 30 | | |
| GOES | | 2039 | 2047 | 2052 | S19 | W54 | 9591 | | | 13 | SF | C 2.7 | | | | | | 1.6E-03 |
| HOLL | | 2048 | 2049 | 2054 | S19 | W54 | 9591 | 08 | 28.8 | 6 | SF | | 3 | E | | 12 | | |
| GOES | | 2306 | 2320 | 2336 | | | | | | 30 | | C 4.5 | | | | | | 5.9E-03 |
| GOES | 02 | 0308 | 0314 | 0318 | | | | | | 10 | | C 4.5 | | | | | | 1.5E-03 |
| GOES | | 0405 | 0408 | 0411 | | | | | | 6 | | C 1.3 | | | | | | 4.3E-04 |
| LEAR | | 0420 | 0421 | 0424 | N14 | E14 | 9601 | 09 | 3.2 | 4 | SF | | 3 | E | | 13 | | F |
| GOES | | 0436 | 0440 | 0444 | N14 | E14 | 9601 | | | 8 | SF | C 4.9 | | | | | | 1.6E-03 |
| LEAR | | 0439 | 0439 | 0442 | N10 | E14 | 9601 | 09 | 3.2 | 3 | SF | | 3 | E | | 19 | | F |
| GOES | | 0503 | 0508 | 0512 | S17 | W65 | 9591 | | | 9 | SF | C 2.7 | | | | | | 1.3E-03 |
| LEAR | | 0504 | 0505 | 0510 | S17 | W65 | 9591 | 08 | 28.4 | 6 | SF | | 2 | E | | 23 | | F |
| GOES | | 0542 | 0546 | 0550 | | | | | | 8 | | C 2.1 | | | | | | 8.7E-04 |
| LEAR | | 0554 | 0601 | 0614 | S17 | W66 | 9591 | 08 | 28.3 | 20 | 1F | | 3 | E | | 113 | | FH |
| GOES | | 0554 | 0602 | 0612 | S17 | W66 | 9591 | | | 18 | 1F | M 1.3 | | | | | | 8.5E-03 |
| LEAR | | 0615 | 0617 | 0654 | N16 | E18 | 9601 | 09 | 3.6 | 39 | SF | | 2 | E | | 42 | | F |
| GOES | | 0616 | 0624 | 0635 | N16 | E18 | 9601 | | | 19 | SF | M 1.1 | | | | | | 1.2E-02 |
| GOES | | 0912 | 0917 | 0921 | | | | | | 9 | | C 8.4 | | | | | | 2.7E-03 |
| RAMY | | 1144 | 1145 | 1147 | S17 | W71 | 9601 | 08 | 28.2 | 3 | SF | | 3 | E | | 13 | | |
| GOES | | 1146 | 1208 | 1233 | S17 | W71 | 9591 | | | 47 | SF | C 4.7 | | | | | | 1.1E-02 |
| RAMY | | 1151 | 1152 | 1201 | S17 | W71 | 9591 | 08 | 28.2 | 10 | SF | | 3 | E | | 19 | | F |
| RAMY | | 1219 | 1220 | 1224 | N11 | E11 | 9601 | 09 | 3.3 | 5 | SF | | 3 | E | | 14 | | |
| RAMY | | 1242 | 1242 | 1247 | S18 | W74 | 9591 | 08 | 28.0 | 5 | SF | | 3 | E | | 16 | | |
| RAMY | | 1250 | 1251 | 1254 | S18 | W74 | 9591 | 08 | 28.0 | 4 | SF | | 3 | E | | 42 | | |
| GOES | | 1311 | 1315 | 1318 | N16 | E10 | 9601 | | | 7 | SF | C 3.3 | | | | | | 1.2E-03 |
| RAMY | | 1311 | 1315 | 1326 | N16 | E10 | 9601 | 09 | 3.3 | 15 | SF | | 3 | E | | 19 | | F |
| GOES | | 1341 | 1348 | 1354 | S21 | W65 | 9591 | | | 13 | 2N | M 3.0 | | | | | | 1.3E-02 |
| RAMY | | 1345 | 1346 | 1430 | S21 | W65 | 9591 | 08 | 28.7 | 45 | 2N | | 3 | E | | 305 | | FH |
| RAMY | | 1513 | 1517 | 1540 | N12 | E11 | 9601 | 09 | 3.5 | 27 | SF | | 3 | E | | 53 | | F |
| GOES | | 1515 | 1517 | 1529 | N12 | E11 | 9601 | | | 14 | SF | C 3.6 | | | | | | 2.8E-03 |
| GOES | | 1640 | 1750 | 1806 | S17 | W75 | 9591 | | | 86 | SF | C 6.4 | | | | | | 2.1E-02 |
| RAMY | | 1641 | 1644 | 1647 | S17 | W75 | 9591 | 08 | 28.1 | 6 | SF | | 3 | E | | 13 | | |
| GOES | | 1902 | 1906 | 1915 | | | | | | 13 | | C 2.0 | | | | | | 1.5E-03 |
| GOES | 03 | 0149 | 0158 | 0203 | | | | | | 14 | | C 9.0 | | | | | | 4.9E-03 |
| GOES | | 0324 | 0327 | 0329 | N11 | E02 | 9601 | | | 5 | SF | C 3.4 | | | | | | 7.4E-04 |
| LEAR | | 0327 | 0328 | 0331 | N11 | E02 | 9601 | 09 | 3.3 | 4 | SF | | 3 | E | | 52 | | F |
| SVTO | | 0539 | 0540 | 0543 | N14 | E00 | 9601 | 09 | 3.2 | 4 | SF | | 3 | E | | 26 | | |
| GOES | | 0549 | 0602 | 0712 | N13 | E05 | 9601 | | | 83 | SF | C 4.2 | | | | | | 1.6E-02 |
| SVTO | | 0553 | 0625 | 0711 | N13 | E05 | 9601 | 09 | 3.6 | 78 | SF | | 3 | E | | 18 | | F |
| LEAR | | 0625E | 0627U | 0648 | N15 | E05 | 9601 | 09 | 3.6 | 23D | SF | | 3 | E | | 34 | | F |
| GOES | | 0938 | 0948 | 1004 | N13 | W03 | 9601 | | | 26 | SF | C 7.2 | | | | | | 8.6E-03 |
| SVTO | | 0940 | 0946U | 1013 | N13 | W03 | 9601 | 09 | 3.2 | 33 | SF | | 3 | E | | 99 | | F |
| GOES | | 1040 | 1049 | 1106 | N12 | E02 | 9601 | | | 26 | SF | C 6.8 | | | | | | 8.7E-03 |
| SVTO | | 1042 | 1046 | 1109 | N12 | E02 | 9601 | 09 | 3.6 | 27 | SF | | 3 | E | | 77 | | F |
| RAMY | | 1044E | 1044U | 1154 | N11 | E01 | 9601 | 09 | 3.5 | 70D | SF | | 3 | E | | 59 | | FH |
| RAMY | | 1542 | 1543 | 1548 | S22 | W58 | | 08 | 30.3 | 6 | SF | | 3 | E | | 25 | | F |
| GOES | | 1545 | 1716 | 1737 | | | 9601 | | | 112 | | M 1.1 | | | | | | 3.8E-02 |
| RAMY | | 1804 | 1810 | 1817 | N10 | W06 | 9601 | 09 | 3.3 | 13 | SF | | 3 | E | | 11 | | F |
| GOES | | 1821 | 1841 | 1910 | | | | | | 49 | | M 2.5 | | | | | | 6.0E-02 |
| LEAR | 04 | 0337 | 0338 | 0341 | S16 | E53 | 9606 | 09 | 8.2 | 4 | SF | | 3 | E | | 20 | | F |
| GOES | | 0410 | 0418 | 0427 | N12 | W11 | 9601 | | | 17 | SF | C 5.0 | | | | | | 3.7E-03 |
| LEAR | | 0413 | 0418 | 0433 | N12 | W11 | 9601 | 09 | 3.3 | 20 | SF | | 3 | E | | 28 | | F |
| LEAR | | 0854 | 0855 | 0900 | N10 | W17 | 9601 | 09 | 3.1 | 6 | SF | | 3 | E | | 14 | | F |
| LEAR | | 0912 | 0912 | 0916 | S17 | E54 | 9606 | 09 | 8.5 | 4 | SF | | 3 | E | | 11 | | |
| SVTO | | 0912 | 0912 | 0916 | S15 | E56 | 9606 | 09 | 8.6 | 4 | SF | | 3 | E | | 14 | | |
| GOES | | 1148 | 1156 | 1215 | S17 | E52 | 9606 | | | 27 | SF | C 3.9 | | | | | | 5.5E-03 |
| RAMY | | 1155 | 1157 | 1207 | S17 | E52 | 9606 | 09 | 8.4 | 12 | SF | | 3 | E | | 47 | | |
| RAMY | | 1351 | 1351 | 1355 | S17 | E51 | 9606 | 09 | 8.4 | 4 | SF | | 3 | E | | 11 | | |
| HOLL | | 1426 | 1430 | 1439 | S16 | E47 | 9606 | 09 | 8.2 | 13 | SF | | 3 | E | | 34 | | |
| HOLL | | 1459 | 1500 | 1506 | S16 | E49 | 9606 | 09 | 8.3 | 7 | SF | | 3 | E | | 46 | | |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Imp See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GOES | 04 | 1512 | 1553 | 1630 | S16 | E49 | 9606 | | | 78 | SF | C 9.0 | | | | | | 3.0E-02 |
| HOLL | | 1518 | 1535 | 1616 | N15 | W16 | 9601 | 09 | 3.4 | 58 | SF | | 3 | E | | 14 | | |
| HOLL | | 1519 | 1530 | 1532 | S16 | E47 | 9606 | 09 | 8.2 | 13 | SF | | 3 | E | | 19 | | F |
| RAMY | | 1519 | 1535 | 1613 | N14 | W16 | 9601 | 09 | 3.4 | 54 | SF | | 3 | E | | 15 | | F |
| HOLL | | 1535 | 1544 | 1558 | S19 | E45 | 9606 | 09 | 8.1 | 23 | SF | | 3 | E | | 10 | | |
| RAMY | | 1543 | 1544 | 1601 | S19 | E47 | 9606 | 09 | 8.2 | 18 | SF | | 3 | E | | 14 | | |
| SVTO | | 1543 | 1557 | 1603 | S19 | E47 | 9605 | 09 | 8.2 | 20 | SF | | 3 | E | | 28 | | F |
| GOES | | 1720 | 1724 | 1728 | S16 | E46 | 9606 | | | 8 | SF | C 7.4 | | | | | | 3.2E-03 |
| HOLL | | 1721 | 1723 | 1745 | S16 | E46 | 9606 | 09 | 8.2 | 24 | SF | | 3 | E | | 57 | | F |
| RAMY | | 1722 | 1723 | 1743 | S17 | E49 | 9606 | 09 | 8.4 | 21 | SF | | 3 | E | | 41 | | |
| GOES | | 1853 | 1925 | 1937 | | | | | | 44 | | M 1.0 | | | | | | 2.3E-02 |
| HOLL | | 1902 | 1903 | 1907 | S21 | W75 | 9604 | 08 | 30.1 | 5 | SF | | 3 | E | | 21 | | |
| HOLL | | 1902 | 1906 | 1935 | N13 | W20 | 9601 | 09 | 3.3 | 33 | SF | | 3 | E | | 53 | | F |
| HOLL | | 2008 | 2016 | 2037 | S19 | E45 | 9606 | 09 | 8.3 | 29 | 1N | | 3 | E | | 100 | | F |
| GOES | | 2012 | 2017 | 2022 | S19 | E45 | 9606 | | | 10 | 1N | M 1.8 | | | | | | 8.4E-03 |
| HOLL | | 2023 | 2028 | 2031 | N14 | W20 | 9601 | 09 | 3.3 | 8 | SF | | 3 | E | | 15 | | F |
| HOLL | | 2033 | 2036 | 2043 | N13 | W19 | 9601 | 09 | 3.4 | 10 | SF | | 3 | E | | 11 | | |
| HOLL | | 2058 | 2058 | 2109 | S16 | E45 | 9606 | 09 | 8.3 | 11 | SF | | 3 | E | | 22 | | F |
| HOLL | | 2151 | 2152 | 2216 | S16 | E45 | 9606 | 09 | 8.3 | 25 | SF | | 3 | E | | 51 | | F |
| GOES | | 2153 | 2159 | 2205 | N15 | W23 | 9601 | | | 12 | 1N | M 3.7 | | | | | | 2.0E-02 |
| HOLL | | 2154 | 2201 | 2232D | N15 | W23 | 9601 | 09 | 3.2 | 38D | 1N | | 3 | E | | 236 | | F |
| GOES | | 2350 | 2416 | 2439 | | | | | | 49 | | C 8.9 | | | | | | 7.5E-03 |
| GOES | 05 | 0253 | 0259 | 0311 | | | | | | 18 | | C 9.3 | | | | | | 8.7E-03 |
| GOES | | 0507 | 0515 | 0519 | | | | | | 12 | | C 4.2 | | | | | | 2.6E-03 |
| GOES | | 0605 | 0636 | 0655 | | | | | | 50 | | C 6.4 | | | | | | 1.7E-02 |
| LEAR | | 0913 | 0916 | 0921 | N08 | W28 | 9601 | 09 | 3.3 | 8 | SF | | 3 | E | | 13 | | |
| GOES | | 0913 | 0916 | 0921 | N08 | W28 | 9601 | | | 8 | SF | C 5.7 | | | | | | 2.8E-03 |
| RAMY | | 1057 | 1116 | 1136 | N08 | W30 | 9601 | 09 | 3.2 | 39 | SF | | 3 | E | | 26 | | F |
| GOES | | 1414 | 1417 | 1420 | | | | | | 6 | | C 4.5 | | | | | | 1.5E-03 |
| HOLL | | 1423 | 1423 | 1435 | S28 | E76 | | 09 | 11.5 | 12 | SF | | 3 | E | | 12 | | |
| GOES | | 1425 | 1432 | 1434 | N15 | W31 | 9601 | | | 9 | 2B | M 6.0 | | | | | | 1.6E-02 |
| RAMY | | 1427 | 1432 | 1538 | N15 | W31 | 9601 | 09 | 3.2 | 71 | 2B | | 3 | E | | 393 | | F |
| HOLL | | 1526 | 1528 | 1559 | S24 | E72 | | 09 | 11.2 | 33 | SF | | 3 | E | | 27 | | |
| RAMY | | 1538 | 1545 | 1547 | N15 | W39 | 9601 | 09 | 2.7 | 9 | SF | | 3 | E | | 10 | | |
| GOES | | 1628 | 1634 | 1638 | S25 | E70 | | | | 10 | SF | C 8.1 | | | | | | 4.4E-03 |
| RAMY | | 1630 | 1632 | 1635 | S25 | E70 | | 09 | 11.1 | 5 | SF | | 3 | E | | 20 | | F |
| GOES | | 1903 | 1913 | 1922 | S16 | E35 | 9606 | | | 19 | 1N | M 1.3 | | | | | | 1.2E-02 |
| HOLL | | 1905 | 1907 | 1946 | S16 | E35 | 9606 | 09 | 8.4 | 41 | 1N | | 3 | E | | 137 | | UF |
| HOLL | | 1939 | 1940 | 1949 | N06 | W37 | 9601 | 09 | 3.0 | 10 | SF | | 3 | E | | 19 | | |
| HOLL | | 2018 | 2019 | 2022 | N08 | W38 | 9601 | 09 | 3.0 | 4 | SF | | 3 | E | | 13 | | F |
| HOLL | | 2038 | 2047 | 2058 | S25 | E67 | 9608 | 09 | 11.0 | 20 | SF | | 3 | E | | 19 | | |
| HOLL | | 2054 | 2057 | 2111 | N11 | W38 | 9601 | 09 | 3.0 | 17 | SF | | 3 | E | | 73 | | F |
| HOLL | | 2106 | 2109 | 2122 | S17 | E35 | 9606 | 09 | 8.5 | 16 | SF | | 3 | E | | 41 | | F |
| HOLL | | 2111 | 2111 | 2117 | S24 | E68 | 9608 | 09 | 11.1 | 6 | SF | | 3 | E | | 15 | | |
| HOLL | | 2202 | 2215 | 2255 | S18 | E31 | 9606 | 09 | 8.3 | 53 | SF | | 3 | E | | 97 | | F |
| GOES | | 2223 | 2233 | 2246 | S25 | E67 | 9608 | | | 23 | SF | M 2.2 | | | | | | 2.3E-02 |
| HOLL | | 2224 | 2229 | 2319 | S25 | E67 | 9608 | 09 | 11.1 | 55 | SF | | 3 | E | | 78 | | F |
| HOLL | | 2329 | 2330U | 2331D | S20 | W54 | 9599 | 09 | 1.8 | 2D | SF | | 3 | E | | 27 | | |
| HOLL | | 2330 | 2330U | 2331D | S17 | E33 | 9606 | 09 | 8.5 | 1D | SF | | 3 | E | | 11 | | |
| GOES | 06 | 0341 | 0346 | 0351 | | | 9601 | | | 10 | | C 8.1 | | | | | | 4.0E-03 |
| SVTO | | 0531E | 0531U | 0534D | S26 | E67 | 9608 | 09 | 11.4 | 3D | SF | | 2 | E | | 15 | | |
| SVTO | | 0730 | 0730 | 0734 | N12 | W34 | 9601 | 09 | 3.7 | 4 | SF | | 3 | E | | 11 | | FH |
| GOES | | 1316 | 1324 | 1334 | S18 | E24 | 9605 | | | 18 | SF | C 6.7 | | | | | | 6.0E-03 |
| RAMY | | 1319 | 1320 | 1329 | S18 | E24 | 9605 | 09 | 8.4 | 10 | SF | | 3 | E | | 44 | | F |
| SVTO | | 1319 | 1321 | 1335 | S18 | E23 | 9606 | 09 | 8.3 | 16 | SF | | 3 | E | | 54 | | F |
| RAMY | | 1321 | 1321 | 1330 | S19 | E21 | 9606 | 09 | 8.1 | 9 | SF | | 3 | E | | 17 | | F |
| HOLL | | 1357 | 1357 | 1404 | S13 | E40 | 9607 | 09 | 9.6 | 7 | SF | | 3 | E | | 11 | | |
| GOES | | 1532 | 1536 | 1543 | S16 | E45 | 9607 | | | 11 | SF | C 4.6 | | | | | | 2.5E-03 |
| HOLL | | 1537 | 1537 | 1545 | S16 | E45 | 9607 | 09 | 10.1 | 8 | SF | | 3 | E | | 16 | | |
| HOLL | | 1623 | 1624 | 1632 | N13 | W42 | 9601 | 09 | 3.5 | 9 | SF | | 3 | E | | 12 | | |
| HOLL | | 1719 | 1721 | 1727 | S20 | E50 | 9608 | 09 | 10.5 | 8 | SF | | 3 | E | | 20 | | F |
| HOLL | | 1720 | 1732 | 1749 | S14 | E77 | 9610 | 09 | 12.5 | 29 | SF | | 3 | E | | 62 | | |
| HOLL | | 1759 | 1802 | 1818 | S21 | E48 | 9608 | 09 | 10.4 | 19 | SF | | 3 | E | | 28 | | UF |
| HOLL | | 1846 | 1846 | 1849 | S23 | E57 | 9608 | 09 | 11.2 | 3 | SF | | 3 | E | | 10 | | |
| GOES | | 1947 | 1955 | 2023 | S14 | E75 | 9610 | | | 36 | SF | C 5.0 | | | | | | 9.8E-03 |
| HOLL | | 1954 | 1955 | 1959 | S14 | E75 | 9610 | 09 | 12.5 | 5 | SF | | 3 | E | | 19 | | |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOLL | 06 | 2007 | 2008 | 2013 | S16 | E51 | 9607 | 09 | 10.7 | 6 | SF | | 3 | E | | 39 | | |
| HOLL | | 2036 | 2047 | 2105 | S13 | E76 | 9610 | 09 | 12.6 | 29 | SF | | 3 | E | | 19 | | |
| HOLL | | 2105 | 2111 | 2115 | S13 | E77 | 9610 | 09 | 12.7 | 10 | SF | | 3 | E | | 27 | | |
| HOLL | | 2137 | 2349 | 2442 | S14 | E75 | 9610 | 09 | 12.6 | 185 | SF | | 3 | E | | 40 | | T |
| HOLL | | 2154 | 2157 | 2200 | N15 | W43 | 9601 | 09 | 3.6 | 6 | SF | | 3 | E | | 31 | | F |
| HOLL | | 2333 | 2334 | 2337 | S17 | E49 | 9607 | 09 | 10.7 | 4 | SF | | 3 | E | | 35 | | |
| GOES | 07 | 0105 | 0117 | 0129 | | | | | | 24 | | C 8.2 | | | | | | 9.9E-03 |
| GOES | | 0359 | 0402 | 0412 | | | | | | 13 | | C 5.5 | | | | | | 4.0E-03 |
| GOES | | 0705 | 0709 | 0712 | | | | | | 7 | | C 3.7 | | | | | | 1.4E-03 |
| HOLL | | 1439 | 1441 | 1505 | S13 | E66 | 9610 | 09 | 12.6 | 26 | SF | | 3 | E | | 28 | | |
| GOES | | 1526 | 1538 | 1551 | N19 | W65 | 9601 | | | 25 | 1F | M 1.2 | | | | | | 1.3E-02 |
| SVTO | | 1529 | 1538 | 1610 | N19 | W65 | 9601 | 09 | 2.7 | 41 | 1F | | 3 | E | | 174 | | FH |
| HOLL | | 1727 | 1728 | 1735 | S22 | E44 | 9608 | 09 | 11.1 | 8 | SF | | 3 | E | | 23 | | |
| HOLL | | 1754 | 1756 | 1759 | S25 | E43 | 9608 | 09 | 11.1 | 5 | SF | | 3 | E | | 15 | | |
| HOLL | | 1832 | 1833 | 1843 | S22 | E43 | 9608 | 09 | 11.1 | 11 | SF | | 3 | E | | 15 | | |
| RAMY | | 1851 | 1851 | 1858 | S22 | E44 | 9608 | 09 | 11.2 | 7 | SF | | 3 | E | | 11 | | F |
| HOLL | | 1851 | 1852 | 1858 | S22 | E43 | 9608 | 09 | 11.1 | 7 | SF | | 3 | E | | 13 | | |
| GOES | | 2113 | 2120 | 2133 | S14 | E64 | 9610 | | | 20 | SF | C 5.1 | | | | | | 4.8E-03 |
| HOLL | | 2116 | 2116 | 2128 | S14 | E64 | 9610 | 09 | 12.7 | 12 | SF | | 3 | E | | 56 | | F |
| RAMY | | 2116 | 2117 | 2128 | S14 | E65 | 9610 | 09 | 12.8 | 12 | SF | | 3 | E | | 38 | | F |
| HOLL | | 2126 | 2131 | 2147 | S22 | E42 | 9608 | 09 | 11.1 | 21 | SF | | 3 | E | | 26 | | |
| GOES | | 2246 | 2250 | 2254 | N14 | W58 | 9601 | | | 8 | SF | C 2.9 | | | | | | 1.2E-03 |
| HOLL | | 2248 | 2249 | 2303 | N14 | W58 | 9601 | 09 | 3.6 | 15 | SF | | 3 | E | | 88 | | FH |
| GOES | | 2321 | 2333 | 2346 | | | | | | 25 | | C 4.9 | | | | | | 6.1E-03 |
| GOES | 08 | 0130 | 0135 | 0145 | | | | | | 15 | | C 7.4 | | | | | | 5.8E-03 |
| GOES | | 0438 | 0457 | 0507 | S28 | E50 | 9608 | | | 29 | SF | M 1.2 | | | | | | 1.4E-02 |
| SVTO | | 0449E | 0449U | 0525 | S28 | E50 | 9608 | 09 | 12.1 | 36D | SF | | 1 | E | | 68 | | F |
| GOES | | 0703 | 0708 | 0714 | | | | | | 11 | | C 3.4 | | | | | | 2.0E-03 |
| RAMY | | 1127 | 1130 | 1135 | N11 | W66 | 9601 | 09 | 3.5 | 8 | SF | | 3 | E | | 25 | | F |
| RAMY | | 1140 | 1141 | 1147 | N10 | W69 | 9601 | 09 | 3.3 | 7 | SF | | 3 | E | | 17 | | |
| GOES | | 1225 | 1229 | 1234 | S17 | W64 | 9613 | | | 9 | SF | C 3.5 | | | | | | 1.7E-03 |
| RAMY | | 1228 | 1230 | 1236 | S17 | W64 | 9613 | 09 | 3.6 | 8 | SF | | 3 | E | | 18 | | |
| GOES | | 1340 | 1401 | 1412 | N11 | W32 | 9611 | | | 32 | SF | C 3.8 | | | | | | 6.5E-03 |
| HOLL | | 1342 | 1408 | 1445 | N11 | W32 | 9611 | 09 | 6.2 | 63 | SF | | 3 | E | | 82 | | |
| HOLL | | 1429 | 1429 | 1433 | S16 | W67 | 9613 | 09 | 3.5 | 4 | SF | | 3 | E | | 13 | | |
| HOLL | | 1430 | 1433 | 1435 | S25 | E42 | 9608 | 09 | 11.8 | 5 | SF | | 3 | E | | 32 | | |
| HOLL | | 1457 | 1459 | 1502 | S15 | E18 | 9607 | 09 | 10.0 | 5 | SF | | 3 | E | | 13 | | |
| GOES | | 1526 | 1532 | 1544 | S19 | W03 | 9606 | | | 18 | SF | C 3.3 | | | | | | 3.2E-03 |
| HOLL | | 1527 | 1531 | 1541 | S19 | W03 | 9606 | 09 | 8.4 | 14 | SF | | 3 | E | | 27 | | F |
| RAMY | | 1529 | 1529 | 1534 | S20 | W06 | 9606 | 09 | 8.2 | 5 | SF | | 3 | E | | 10 | | F |
| GOES | | 1640 | 1645 | 1649 | S23 | E32 | 9608 | | | 9 | SF | C 5.1 | | | | | | 1.9E-03 |
| HOLL | | 1643 | 1644 | 1720 | S23 | E32 | 9608 | 09 | 11.2 | 37 | SF | | 3 | E | | 70 | | F |
| RAMY | | 1643 | 1645 | 1652 | S22 | E33 | 9608 | 09 | 11.2 | 9 | SF | | 3 | E | | 22 | | F |
| HOLL | | 1648 | 1650 | 1652 | S16 | W68 | 9613 | 09 | 3.5 | 4 | SF | | 3 | E | | 14 | | |
| RAMY | | 1658 | 1701 | 1717 | S23 | E34 | 9608 | 09 | 11.3 | 19 | SF | | 3 | E | | 22 | | |
| HOLL | | 1739 | 1740 | 1745 | N10 | W33 | 9611 | 09 | 6.2 | 6 | SF | | 3 | E | | 13 | | |
| HOLL | | 1810 | 1816 | 1822 | S15 | E16 | 9607 | 09 | 10.0 | 12 | SF | | 3 | E | | 21 | | |
| HOLL | | 1813 | 1814 | 1821 | S25 | E30 | 9608 | 09 | 11.1 | 8 | SF | | 3 | E | | 20 | | |
| HOLL | | 1814 | 1814 | 1823 | S16 | W68 | 9613 | 09 | 3.6 | 9 | SF | | 3 | E | | 10 | | |
| RAMY | | 1814 | 1815 | 1818 | S15 | E17 | 9607 | 09 | 10.0 | 4 | SF | | 3 | E | | 19 | | |
| RAMY | | 1823 | 1824 | 1827 | N09 | W34 | 9611 | 09 | 6.2 | 4 | SF | | 3 | E | | 21 | | |
| HOLL | | 1823 | 1824 | 1828 | N11 | W35 | 9611 | 09 | 6.1 | 5 | SF | | 3 | E | | 49 | | |
| HOLL | | 1826 | 1840 | 1845 | S16 | W68 | 9613 | 09 | 3.6 | 19 | SF | | 3 | E | | 17 | | |
| HOLL | | 1900 | 1907 | 1911 | S16 | W68 | 9613 | 09 | 3.6 | 11 | SF | | 3 | E | | 26 | | |
| GOES | | 1900 | 1923 | 1946 | | | 9601 | | | 46 | | M 1.1 | | | | | | 2.2E-02 |
| RAMY | | 1902 | 1904 | 1911 | S20 | W08 | 9605 | 09 | 8.2 | 9 | SF | | 3 | E | | 29 | | F |
| HOLL | | 1902 | 1904 | 1912 | S19 | W10 | 9606 | 09 | 8.0 | 10 | SF | | 3 | E | | 36 | | F |
| HOLL | | 1912 | 1918 | 1937 | N10 | W72 | 9601 | 09 | 3.4 | 25 | SF | | 3 | E | | 58 | | F |
| RAMY | | 1912 | 1923 | 1937 | N08 | W74 | 9601 | 09 | 3.2 | 25 | SF | | 3 | E | | 92 | | F |
| HOLL | | 2129 | 2130 | 2136 | S24 | E30 | 9608 | 09 | 11.2 | 7 | SF | | 3 | E | | 16 | | |
| HOLL | | 2139 | 2141 | 2213 | S26 | E40 | 9608 | 09 | 12.0 | 34 | SF | | 3 | E | | 18 | | F |
| HOLL | | 2248 | 2251 | 2256 | S17 | W71 | 9613 | 09 | 3.5 | 8 | SF | | 3 | E | | 11 | | |
| HOLL | | 2304 | 2304 | 2312 | S17 | W71 | 9613 | 09 | 3.6 | 8 | SF | | 3 | E | | 12 | | |
| GOES | | 2314 | 2353 | 2358 | S17 | E16 | 9607 | | | 44 | SF | C 4.6 | | | | | | 8.3E-03 |
| HOLL | | 2334 | 2351 | 2404 | S17 | E16 | 9607 | 09 | 10.2 | 30 | SF | | 3 | E | | 13 | | |
| GOES | 09 | 0139 | 0145 | 0151 | | | 9608 | | | 12 | | C 5.0 | | | | | | 2.6E-03 |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Imp See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LEAR | 09 | 0141 | 0240 | 0419 | S24 | E26 | 9608 | 09 | 11.1 | 158 | 2B | | 3 | E | | 418 | | FE |
| GOES | | 0232 | 0240 | 0247 | S24 | E26 | 9608 | | | 15 | 2B | M 1.9 | | | | | | 1.2E-02 |
| GOES | | 0800 | 0805 | 0811 | S16 | E09 | 9607 | | | 11 | SF | C 4.5 | | | | | | 2.4E-03 |
| LEAR | | 0803 | 0803 | 0812 | S16 | E08 | 9607 | 09 | 9.9 | 9 | SF | | 3 | E | | 16 | | F |
| SVTO | | 0803 | 0803 | 0812 | S16 | E09 | 9607 | 09 | 10.0 | 9 | SF | | 3 | E | | 10 | | F |
| GOES | | 0955 | 1001 | 1006 | S31 | E30 | 9608 | | | 11 | SF | M 1.0 | | | | | | 4.4E-03 |
| SVTO | | 0958 | 1001 | 1010 | S31 | E30 | 9608 | 09 | 11.8 | 12 | SF | | 3 | E | | 34 | | F |
| RAMY | | 1036E | 1036 | 1104 | S30 | E29 | 9608 | 09 | 11.7 | 28D | SF | | 3 | E | | 43 | | F |
| GOES | | 1052 | 1056 | 1058 | S30 | E29 | 9608 | | | 6 | SF | C 3.2 | | | | | | 1.1E-03 |
| SVTO | | 1052 | 1056 | 1059 | S32 | E29 | 9608 | 09 | 11.7 | 7 | SF | | 3 | E | | 33 | | |
| GOES | | 1116 | 1122 | 1125 | S25 | E21 | 9608 | | | 9 | SF | C 3.0 | | | | | | 1.6E-03 |
| RAMY | | 1121 | 1123 | 1132 | S25 | E21 | 9608 | 09 | 11.1 | 11 | SF | | 3 | E | | 24 | | |
| GOES | | 1229 | 1235 | 1241 | | | | | | 12 | | C 4.7 | | | | | | 2.9E-03 |
| GOES | | 1331 | 1335 | 1344 | S25 | E20 | 9608 | | | 13 | SF | C 7.5 | | | | | | 4.8E-03 |
| RAMY | | 1332 | 1334 | 1345 | S25 | E20 | 9608 | 09 | 11.1 | 13 | SF | | 3 | E | | 49 | | |
| SVTO | | 1333 | 1334 | 1344 | S31 | E29 | 9608 | 09 | 11.8 | 11 | SF | | 3 | E | | 37 | | F |
| HOLL | | 1359 | 1404 | 1509 | S30 | E29 | 9608 | 09 | 11.9 | 70 | SF | | 3 | E | | 52 | | F |
| RAMY | | 1401 | 1403 | 1439 | S28 | E21 | 9608 | 09 | 11.2 | 38 | SF | | 3 | E | | 26 | | F |
| SVTO | | 1403 | 1419 | 1423 | S29 | E18 | 9608 | 09 | 11.0 | 20 | SF | | 3 | E | | 30 | | |
| SVTO | | 1425 | 1426 | 1430 | S26 | E22 | 9608 | 09 | 11.3 | 5 | SF | | 3 | E | | 20 | | F |
| SVTO | | 1453E | 1453U | 1501 | S32 | E28 | 9608 | 09 | 11.8 | 8D | SF | | 2 | E | | 13 | | F |
| RAMY | | 1456 | 1458 | 1502 | S31 | E28 | 9608 | 09 | 11.8 | 6 | SF | | 3 | E | | 16 | | F |
| GOES | | 1510 | 1516 | 1521 | S17 | E03 | 9607 | | | 11 | 1N | M 3.4 | | | | | | 1.3E-02 |
| RAMY | | 1512 | 1517 | 1532 | S16 | E06 | 9607 | 09 | 10.1 | 20 | 1N | | 3 | E | | 123 | | F |
| SVTO | | 1512 | 1517 | 1532 | S16 | E05 | 9607 | 09 | 10.0 | 20 | 1B | | 3 | E | | 116 | | F |
| HOLL | | 1512 | 1517 | 1533 | S17 | E03 | 9607 | 09 | 9.9 | 21 | 1N | | 3 | E | | 123 | | FH |
| HOLL | | 1513 | 1525 | 1543 | S32 | E22 | 9608 | 09 | 11.4 | 30 | SN | | 3 | E | | 89 | | F |
| SVTO | | 1515 | 1525 | 1541 | S32 | E25 | 9608 | 09 | 11.6 | 26 | SF | | 3 | E | | 87 | | F |
| RAMY | | 1515 | 1526 | 1541 | S31 | E26 | 9608 | 09 | 11.7 | 26 | SF | | 3 | E | | 86 | | H |
| GOES | | 1523 | 1526 | 1528 | S32 | E22 | 9608 | | | 5 | SN | M 2.2 | | | | | | 5.7E-03 |
| GOES | | 1822 | 1828 | 1834 | | | 9608 | | | 12 | | C 4.5 | | | | | | 2.4E-03 |
| HOLL | | 1824 | 1841 | 1921 | S26 | E24 | 9608 | 09 | 11.6 | 57 | 2B | | 3 | E | | 313 | | FE |
| RAMY | | 1825 | 1825 | 1834 | S32 | E31 | 9608 | 09 | 12.2 | 9 | SF | | 3 | E | | 41 | | F |
| GOES | | 1835 | 1841 | 1843 | | | 9608 | | | 8 | | M 2.0 | | | | | | 5.4E-03 |
| RAMY | | 1836 | 1841 | 1920 | S23 | E21 | 9608 | 09 | 11.4 | 44 | 2N | | 3 | E | | 259 | | FH |
| GOES | | 2040 | 2045 | 2048 | S31 | E26 | 9608 | | | 8 | 2N | M 9.5 | | | | | | 2.2E-02 |
| HOLL | | 2043 | 2048 | 2120 | S31 | E26 | 9608 | 09 | 11.9 | 37 | 2N | | 3 | E | | 281 | | FE |
| HOLL | | 2204 | 2208 | 2218 | S22 | E14 | 9608 | 09 | 11.0 | 14 | SF | | 3 | E | | 14 | | |
| GOES | | 2233 | 2238 | 2241 | S24 | E18 | 9608 | | | 8 | SF | C 4.9 | | | | | | 1.9E-03 |
| HOLL | | 2235 | 2238 | 2245 | S24 | E18 | 9608 | 09 | 11.3 | 10 | SF | | 3 | E | | 32 | | |
| GOES | 10 | 0312 | 0315 | 0317 | | | | | | 5 | | C 3.4 | | | | | | 9.1E-04 |
| GOES | | 0351 | 0412 | 0425 | | | | | | 34 | | C 4.0 | | | | | | 7.1E-03 |
| GOES | | 0512 | 0516 | 0518 | S24 | E13 | 9608 | | | 6 | 1N | C 8.7 | | | | | | 2.3E-03 |
| LEAR | | 0514 | 0515 | 0521 | S24 | E13 | 9608 | 09 | 11.2 | 7 | 1N | | 2 | E | | 115 | | F |
| SVTO | | 0514E | 0516U | 0529D | S24 | E15 | 9608 | 09 | 11.4 | 15D | SF | | 2 | E | | 16 | | |
| GOES | | 0539 | 0543 | 0547 | | | | | | 8 | | C 6.8 | | | | | | 2.6E-03 |
| GOES | | 0818 | 0825 | 0838 | S32 | E19 | 9608 | | | 20 | SF | C 6.9 | | | | | | 6.6E-03 |
| LEAR | | 0821 | 0825 | 0836 | S32 | E19 | 9608 | 09 | 11.8 | 15 | SF | | 2 | E | | 61 | | F |
| SVTO | | 0822 | 0825 | 0832D | S31 | E21 | 9608 | 09 | 12.0 | 10D | SF | | 3 | E | | 37 | | F |
| GOES | | 1417 | 1420 | 1423 | S24 | E08 | 9608 | | | 6 | SF | C 1.9 | | | | | | 6.4E-04 |
| HOLL | | 1418 | 1419 | 1431 | S24 | E08 | 9608 | 09 | 11.2 | 13 | SF | | 3 | E | | 33 | | F |
| RAMY | | 1420 | 1422 | 1429 | S24 | E09 | 9608 | 09 | 11.3 | 9 | SF | | 3 | E | | 19 | | |
| GOES | | 1447 | 1522 | 1537 | S16 | W05 | 9607 | | | 50 | SF | C 8.1 | | | | | | 1.4E-02 |
| HOLL | | 1450 | 1523 | 1550 | S16 | W05 | 9607 | 09 | 10.2 | 60 | SF | | 3 | E | | 37 | | F |
| RAMY | | 1455 | 1456 | 1506 | S17 | W02 | 9607 | 09 | 10.5 | 11 | SF | | 3 | E | | 19 | | F |
| HOLL | | 1502 | 1516 | 1551 | S33 | E19 | 9608 | 09 | 12.1 | 49 | SF | | 3 | E | | 82 | | F |
| RAMY | | 1512 | 1516 | 1540 | S33 | E23 | 9608 | 09 | 12.5 | 28 | SF | | 3 | E | | 62 | | F |
| SVTO | | 1516 | 1517 | 1523 | S35 | E21 | 9608 | 09 | 12.3 | 7 | SF | | 3 | E | | 17 | | F |
| HOLL | | 1520 | 1521 | 1536 | S11 | E24 | 9610 | 09 | 12.4 | 16 | SF | | 3 | E | | 56 | | F |
| SVTO | | 1521 | 1521 | 1530 | S11 | E25 | 9610 | 09 | 12.5 | 9 | SF | | 3 | E | | 36 | | |
| RAMY | | 1521 | 1522 | 1531 | S10 | E25 | 9610 | 09 | 12.5 | 10 | SF | | 3 | E | | 50 | | |
| GOES | | 1806 | 1810 | 1816 | S11 | E23 | 9610 | | | 10 | SF | C 2.3 | | | | | | 1.2E-03 |
| HOLL | | 1807 | 1812 | 1818 | S11 | E23 | 9610 | 09 | 12.5 | 11 | SF | | 3 | E | | 51 | | F |
| HOLL | | 1909 | 1912 | 1914 | S32 | E10 | 9608 | 09 | 11.6 | 5 | SF | | 3 | E | | 34 | | |
| HOLL | | 1941 | 1942 | 1948 | S13 | E25 | 9610 | 09 | 12.7 | 7 | SF | | 3 | E | | 17 | | |
| HOLL | | 1954 | 1955 | 2011 | S13 | E25 | 9610 | 09 | 12.7 | 17 | SF | | 3 | E | | 24 | | F |
| HOLL | | 2023 | 2031 | 2046 | S30 | E18 | 9608 | 09 | 12.3 | 23 | 1F | | 3 | E | | 119 | | FH |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Obs See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GOES | 10 | 2023 | 2031 | 2046 | S30 | E18 | 9608 | | | 23 | 1F | C 2.4 | | | | | | 3.1E-03 |
| HOLL | | 2103 | 2107 | 2109 | S31 | E19 | 9608 | 09 | 12.4 | 6 | SF | | 3 | E | | 14 | | |
| HOLL | | 2311 | 2312 | 2314 | S25 | E02 | 9608 | 09 | 11.1 | 3 | SF | | 3 | E | | 45 | | |
| HOLL | | 2339 | 2347 | 2347D | S30 | E16 | 9608 | 09 | 12.2 | 8D | SF | | 3 | E | | 71 | | F |
| LEAR | | 2340 | 2348 | 2357 | S30 | E15 | 9608 | 09 | 12.2 | 17 | SF | | 2 | E | | 28 | | FH |
| GOES | | 2345 | 2348 | 2351 | S30 | E15 | 9608 | | | 6 | SF | C 3.6 | | | | | | 1.2E-03 |
| GOES | 11 | 0011 | 0017 | 0022 | S30 | E13 | 9608 | | | 11 | SF | C 3.9 | | | | | | 2.2E-03 |
| LEAR | | 0012 | 0016 | 0022 | S30 | E13 | 9608 | 09 | 12.0 | 10 | SF | | 2 | E | | 10 | | F |
| HOLL | | 0012 | 0031 | 0046 | S30 | E16 | 9608 | 09 | 12.3 | 34 | SF | | 3 | E | | 58 | | F |
| HOLL | | 0017 | 0027 | 0044 | S12 | E22 | 9610 | 09 | 12.7 | 27 | SF | | 3 | E | | 11 | | |
| GOES | | 0028 | 0033 | 0037 | S28 | E09 | 9608 | | | 9 | SF | C 9.5 | | | | | | 3.4E-03 |
| LEAR | | 0031 | 0032 | 0038 | S28 | E09 | 9608 | 09 | 11.7 | 7 | SF | | 2 | E | | 36 | | F |
| GOES | | 0049 | 0111 | 0123 | | | | | | 34 | | M 2.6 | | | | | | 3.6E-02 |
| GOES | | 0332 | 0349 | 0405 | | | | | | 33 | | C 5.1 | | | | | | 8.4E-03 |
| LEAR | | 0613 | 0614 | 0618 | S23 | E02 | 9608 | 09 | 11.4 | 5 | SF | | 3 | E | | 28 | | F |
| GOES | | 0653 | 0704 | 0722 | | | | | | 29 | | M 1.2 | | | | | | 1.6E-02 |
| LEAR | | 0836 | 0838 | 0843 | S13 | E16 | 9610 | 09 | 12.6 | 7 | SF | | 2 | E | | 12 | | |
| GOES | | 0933 | 0937 | 0939 | | | | | | 6 | | C 9.7 | | | | | | 2.0E-03 |
| GOES | | 0947 | 0951 | 0955 | | | | | | 8 | | C 3.3 | | | | | | 1.4E-03 |
| RAMY | | 1129 | 1129 | 1137 | S12 | E16 | 9610 | 09 | 12.7 | 8 | SF | | 3 | E | | 13 | | F |
| GOES | | 1230 | 1233 | 1235 | | | | | | 5 | | C 2.9 | | | | | | 7.4E-04 |
| RAMY | | 1247 | 1248 | 1300 | S27 | E09 | 9608 | 09 | 12.2 | 13 | SF | | 3 | E | | 18 | | |
| GOES | | 1400 | 1437 | 1508 | N13 | E35 | 9615 | | | 68 | SF | C 3.2 | | | | | | 1.2E-02 |
| HOLL | | 1416 | 1439 | 1530 | N13 | E35 | 9615 | 09 | 14.2 | 74 | SF | | 3 | E | | 54 | | F |
| HOLL | | 1428 | 1428 | 1433 | S27 | E06 | 9608 | 09 | 12.1 | 5 | SF | | 3 | E | | 13 | | F |
| RAMY | | 1512 | 1512 | 1525 | S23 | W09 | 9608 | 09 | 10.9 | 13 | SF | | 3 | E | | 19 | | F |
| HOLL | | 1718 | 1721U | 1753 | S12 | E11 | 9610 | 09 | 12.5 | 35 | SF | | 3 | E | | 17 | | F |
| HOLL | | 1830 | 1846 | 1852 | S29 | E06 | 9608 | 09 | 12.2 | 22 | SF | | 3 | E | | 18 | | F |
| HOLL | | 1928 | 1928 | 1935 | S10 | E09 | 9610 | 09 | 12.5 | 7 | SF | | 3 | E | | 26 | | |
| HOLL | | 1936 | 1939 | 1945 | S12 | E08 | 9610 | 09 | 12.4 | 9 | SF | | 3 | E | | 10 | | F |
| GOES | | 1950 | 1954 | 1958 | | | | | | 8 | | C 4.6 | | | | | | 1.9E-03 |
| GOES | | 2025 | 2036 | 2043 | S12 | E88 | 9616 | | | 18 | SF | M 4.5 | | | | | | 3.0E-02 |
| HOLL | | 2028 | 2029 | 2033 | S12 | E88 | 9616 | 09 | 18.5 | 5 | SF | | 3 | E | | 23 | | |
| GOES | | 2231 | 2235 | 2237 | S09 | E06 | 9610 | | | 6 | SF | C 4.8 | | | | | | 1.4E-03 |
| HOLL | | 2232 | 2232 | 2241 | S09 | E06 | 9610 | 09 | 12.4 | 9 | SF | | 3 | E | | 12 | | F |
| GOES | 12 | 0052 | 0056 | 0059 | | | | | | 7 | | C 3.5 | | | | | | 1.3E-03 |
| GOES | | 0435 | 0444 | 0452 | | | | | | 17 | | M 1.0 | | | | | | 7.2E-03 |
| GOES | | 0645 | 0649 | 0652 | S30 | W08 | 9608 | | | 7 | SF | C 4.9 | | | | | | 1.8E-03 |
| SVTO | | 0648 | 0649 | 0656 | S30 | W08 | 9608 | 09 | 11.6 | 8 | SF | | 3 | E | | 36 | | F |
| GOES | | 0844 | 0911 | 0939 | | | | | | 55 | | C 4.7 | | | | | | 1.3E-02 |
| GOES | | 1028 | 1033 | 1038 | | | | | | 10 | | C 3.8 | | | | | | 2.0E-03 |
| SVTO | | 1055 | 1055 | 1104 | S30 | W01 | 9608 | 09 | 12.4 | 9 | SF | | 3 | E | | 22 | | F |
| RAMY | | 1105 | 1106 | 1113 | S30 | W05 | 9608 | 09 | 12.1 | 8 | SF | | 3 | E | | 34 | | F |
| GOES | | 1116 | 1119 | 1122 | | | | | | 6 | | C 3.0 | | | | | | 8.8E-04 |
| GOES | | 1314 | 1318 | 1332 | | | | | | 18 | | C 3.4 | | | | | | 3.1E-03 |
| RAMY | | 1340 | 1340 | 1349 | N12 | W85 | 9611 | 09 | 6.2 | 9 | SF | | 3 | E | | 12 | | |
| GOES | | 2105 | 2149 | 2211 | | | | | | 66 | | C 9.6 | | | | | | 2.3E-02 |
| HOLL | | 2229 | 2232 | 2239 | S29 | W18 | 9608 | 09 | 11.5 | 10 | SF | | 3 | E | | 28 | | F |
| HOLL | | 2229 | 2232 | 2311 | S16 | W62 | 9606 | 09 | 8.2 | 42 | SF | | 3 | E | | 42 | | F |
| HOLL | | 2242 | 2245 | 2259 | S26 | W12 | 9608 | 09 | 12.0 | 17 | SF | | 3 | E | | 27 | | |
| HOLL | | 2257 | 2258 | 2302 | S14 | W03 | 9610 | 09 | 12.7 | 5 | SF | | 3 | E | | 14 | | |
| HOLL | | 2319 | 2319 | 2332 | S25 | W24 | 9608 | 09 | 11.1 | 13 | SF | | 3 | E | | 16 | | |
| GOES | 13 | 0034 | 0037 | 0041 | | | | | | 7 | | C 3.7 | | | | | | 1.2E-03 |
| GOES | | 0121 | 0125 | 0128 | | | | | | 7 | | C 7.0 | | | | | | 2.0E-03 |
| GOES | | 0200 | 0207 | 0217 | S12 | E69 | 9616 | | | 17 | SF | C 6.6 | | | | | | 5.2E-03 |
| LEAR | | 0212 | 0214 | 0221 | S12 | E69 | 9616 | 09 | 18.3 | 9 | SF | | 3 | E | | 23 | | |
| GOES | | 0351 | 0354 | 0359 | S25 | W19 | 9608 | | | 8 | SF | C 4.6 | | | | | | 1.7E-03 |
| LEAR | | 0357 | 0358 | 0403 | S25 | W19 | 9608 | 09 | 11.7 | 6 | SF | | 3 | E | | 21 | | F |
| LEAR | | 0552E | 0616U | 0646 | S27 | W25 | 9608 | 09 | 11.3 | 54D | SF | | 2 | E | | 47 | | F |
| LEAR | | 0647 | 0710 | 0736D | S30 | W26 | 9608 | 09 | 11.2 | 49D | SF | | 2 | E | | 46 | | |
| SVTO | | 0710 | 0710 | 0724 | S31 | W22 | 9608 | 09 | 11.6 | 14 | SF | | 3 | E | | 17 | | F |
| SVTO | | 0920 | 0923 | 0928 | S09 | W12 | 9610 | 09 | 12.5 | 8 | SF | | 3 | E | | 12 | | F |
| RAMY | | 1119 | 1120 | 1151 | S29 | W26 | 9608 | 09 | 11.4 | 32 | SF | | 3 | E | | 18 | | |
| RAMY | | 1215 | 1218 | 1231 | S29 | W27 | 9608 | 09 | 11.4 | 16 | SF | | 3 | E | | 13 | | |
| GOES | | 1303 | 1306 | 1307 | S15 | W10 | 9610 | | | 4 | SF | C 2.4 | | | | | | 5.5E-04 |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Obs See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RAMY | 13 | 1305 | 1305 | 1310 | S15 | W10 | 9610 | 09 | 12.8 | 5 | SF | | 3 | E | | 29 | | |
| GOES | | 1310 | 1312 | 1314 | S14 | W10 | 9610 | | | 4 | SF | C 2.4 | | | | | | 5.4E-04 |
| RAMY | | 1311 | 1312 | 1315 | S14 | W10 | 9610 | 09 | 12.8 | 4 | SF | | 3 | E | | 16 | | |
| RAMY | | 1344 | 1346 | 1357 | N21 | W35 | 9612 | 09 | 10.9 | 13 | SF | | 3 | E | | 16 | | |
| SVTO | | 1345 | 1345 | 1354 | N19 | W36 | 9612 | 09 | 10.8 | 9 | SF | | 3 | E | | 12 | | |
| RAMY | | 1409 | 1411 | 1429 | S29 | W28 | 9608 | 09 | 11.4 | 20 | SF | | 3 | E | | 15 | | |
| SVTO | | 1410 | 1414 | 1428 | S30 | W26 | 9608 | 09 | 11.5 | 18 | SF | | 3 | E | | 15 | | |
| RAMY | | 1433 | 1434 | 1443 | N20 | W36 | 9612 | 09 | 10.8 | 10 | SF | | 3 | E | | 12 | | |
| RAMY | | 1447 | 1447 | 1454 | S26 | W27 | 9608 | 09 | 11.5 | 7 | SF | | 3 | E | | 20 | | |
| GOES | | 1557 | 1602 | 1604 | S15 | W11 | 9610 | | | 7 | SN | C 7.0 | | | | | | 1.7E-03 |
| RAMY | | 1600 | 1601 | 1613 | S15 | W11 | 9610 | 09 | 12.8 | 13 | SN | | 3 | E | | 69 | | |
| SVTO | | 1600 | 1603 | 1610 | S15 | W10 | 9610 | 09 | 12.9 | 10 | SF | | 3 | E | | 43 | | |
| GOES | | 1948 | 1951 | 1954 | | | | | | 6 | | C 5.8 | | | | | | 1.5E-03 |
| GOES | | 2303 | 2309 | 2315 | | | | | | 12 | | C 2.4 | | | | | | 1.5E-03 |
| GOES | 14 | 0551 | 0606 | 0624 | S10 | E46 | 9616 | | | 33 | SF | C 5.8 | | | | | | 9.9E-03 |
| SVTO | | 0553 | 0555 | 0638 | S10 | E46 | 9616 | 09 | 17.7 | 45 | SF | | 3 | E | | 71 | | F |
| GOES | | 0901 | 0904 | 0914 | S10 | E48 | 9616 | | | 13 | SF | C 3.7 | | | | | | 2.3E-03 |
| SVTO | | 0905 | 0905 | 0914 | S10 | E48 | 9616 | 09 | 18.0 | 9 | SF | | 3 | E | | 49 | | |
| RAMY | | 1145 | 1147 | 1151 | S14 | E47 | 9616 | 09 | 18.0 | 6 | SF | | 3 | E | | 30 | | |
| SVTO | | 1146 | 1147 | 1153 | S11 | E47 | 9616 | 09 | 18.0 | 7 | SF | | 3 | E | | 20 | | |
| GOES | | 1352 | 1355 | 1358 | S15 | W24 | 9610 | | | 6 | SF | C 2.6 | | | | | | 8.0E-04 |
| RAMY | | 1355 | 1356 | 1404 | S15 | W24 | 9610 | 09 | 12.8 | 9 | SF | | 3 | E | | 16 | | |
| GOES | | 1548 | 1600 | 1628 | S31 | W42 | 9608 | | | 40 | SF | C 3.2 | | | | | | 7.0E-03 |
| SVTO | | 1552 | 1552 | 1605 | S08 | E53 | 9616 | 09 | 18.6 | 13 | SF | | 3 | E | | 14 | | F |
| RAMY | | 1603E | 1603U | 1637D | S31 | W42 | 9608 | 09 | 11.3 | 34D | SF | | 3 | E | | 15 | | |
| HOLL | | 1816 | 1817 | 1823 | S28 | W40 | 9608 | 09 | 11.6 | 7 | SF | | 3 | E | | 14 | | |
| GOES | | 1839 | 1848 | 1924 | S31 | W36 | 9608 | | | 45 | SF | C 5.5 | | | | | | 1.2E-02 |
| HOLL | | 1842 | 1842 | 1851 | S13 | W28 | 9610 | 09 | 12.7 | 9 | SF | | 3 | E | | 64 | | F |
| HOLL | | 1842 | 1843 | 1851 | S31 | W36 | 9608 | 09 | 11.9 | 9 | SF | | 3 | E | | 52 | | F |
| HOLL | | 1859 | 1900 | 1903 | S31 | W32 | 9608 | 09 | 12.3 | 4 | SF | | 3 | E | | 36 | | F |
| RAMY | | 1904E | 1906U | 2040D | S32 | W35 | 9608 | 09 | 12.0 | 96D | SF | | 3 | E | | 29 | | |
| GOES | | 2141 | 2150 | 2200 | | | 9616 | | | 19 | | M 3.7 | | | | | | 2.7E-02 |
| GOES | | 2255 | 2305 | 2321 | | | | | | 26 | | C 6.7 | | | | | | 8.0E-03 |
| GOES | 15 | 0050 | 0054 | 0058 | | | | | | 8 | | C 3.8 | | | | | | 1.5E-03 |
| GOES | | 0101 | 0110 | 0121 | | | | | | 20 | | C 6.5 | | | | | | 6.4E-03 |
| GOES | | 0519 | 0526 | 0537 | | | | | | 18 | | C 4.7 | | | | | | 4.2E-03 |
| RAMY | | 1103 | 1109 | 1237 | S21 | W49 | 9608 | 09 | 11.7 | 94 | 1N | | 3 | E | | 192 | | FH |
| GOES | | 1104 | 1128 | 1154 | S21 | W49 | 9608 | | | 50 | 1N | M 1.5 | | | | | | 3.7E-02 |
| SVTO | | 1124E | 1139U | 1230 | S27 | W53 | 9608 | 09 | 11.3 | 66D | SF | | 3 | E | | 61 | | FH |
| GOES | | 1544 | 1559 | 1610 | S13 | E27 | 9616 | | | 26 | 1F | M 1.3 | | | | | | 1.4E-02 |
| RAMY | | 1547 | 1609 | 1636 | S13 | E27 | 9616 | 09 | 17.7 | 49 | 1F | | 3 | E | | 101 | | F |
| SVTO | | 1548 | 1609 | 1634D | S13 | E26 | 9616 | 09 | 17.6 | 46D | SF | | 2 | E | | 51 | | FH |
| RAMY | | 1600 | 1601 | 1603 | S17 | W43 | 9608 | 09 | 12.4 | 3 | SF | | 3 | E | | 16 | | |
| HOLL | | 1601 | 1605 | 1629D | S14 | E26 | 9616 | 09 | 17.6 | 28D | SF | | 3 | E | | 56 | | |
| GOES | | 2025 | 2033 | 2046 | S29 | W59 | 9608 | | | 21 | SF | C 8.8 | | | | | | 8.3E-03 |
| HOLL | | 2028E | 2031U | 2134D | S27 | W56 | 9608 | 09 | 11.5 | 66D | SN | | 3 | E | | 77 | | F |
| RAMY | | 2030 | 2034 | 2130 | S29 | W59 | 9608 | 09 | 11.2 | 60 | SF | | 3 | E | | 81 | | |
| HOLL | | 2117E | 2120U | 2138D | S13 | E25 | 9616 | 09 | 17.8 | 21D | SF | | 3 | E | | 82 | | |
| GOES | | 2117 | 2125 | 2136 | S13 | E25 | 9616 | | | 19 | SF | C 5.4 | | | | | | 5.3E-03 |
| HOLL | | 2135E | 2135U | 2138D | S11 | E20 | 9608 | 09 | 17.4 | 3D | SF | | 3 | E | | 16 | | |
| GOES | | 2216 | 2227 | 2231 | | | | | | 15 | | C 2.6 | | | | | | 2.0E-03 |
| GOES | | 2349 | 2358 | 2408 | | | | | | 19 | | C 2.2 | | | | | | 2.2E-03 |
| GOES | 16 | 0009 | 0021 | 0032 | | | | | | 23 | | C 2.9 | | | | | | 3.5E-03 |
| GOES | | 0033 | 0034 | 0037 | | | | | | 4 | | C 2.5 | | | | | | 6.1E-04 |
| LEAR | | 0054 | 0055 | 0058 | S15 | W48 | 9610 | 09 | 12.4 | 4 | SF | | 3 | E | | 32 | | F |
| GOES | | 0223 | 0231 | 0235 | | | | | | 12 | | C 1.6 | | | | | | 1.1E-03 |
| GOES | | 0242 | 0248 | 0254 | N10 | E75 | | | | 12 | SF | C 5.8 | | | | | | 2.9E-03 |
| LEAR | | 0245 | 0247 | 0300 | N10 | E75 | | 09 | 21.8 | 15 | SF | | 3 | E | | 96 | | |
| GOES | | 0303 | 0313 | 0327 | | | | | | 24 | | C 5.9 | | | | | | 7.1E-03 |
| GOES | | 0339 | 0353 | 0418 | S29 | W54 | 9608 | | | 39 | 2N | M 5.6 | | | | | | 8.8E-02 |
| LEAR | | 0341 | 0352 | 0514 | S29 | W54 | 9608 | 09 | 11.9 | 93 | 2N | | 3 | E | | 540 | | ZE |
| GOES | | 0615 | 0620 | 0624 | S27 | W66 | 9608 | | | 9 | SF | C 4.5 | | | | | | 1.9E-03 |
| LEAR | | 0618 | 0624 | 0641 | S27 | W66 | 9608 | 09 | 11.1 | 23 | SF | | 3 | E | | 29 | | F |
| GOES | | 0739 | 0745 | 0751 | S13 | E18 | 9616 | | | 12 | 1F | C 4.5 | | | | | | 2.3E-03 |
| LEAR | | 0742 | 0744 | 0802 | S13 | E18 | 9616 | 09 | 17.7 | 20 | 1F | | 3 | E | | 117 | | FH |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Obs See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SVTO | 16 | 0746E | 0746U | 0759D | S13 | E19 | 9616 | 09 | 17.7 | 13D | SF | | 2 | E | | 11 | | |
| GOES | | 0909 | 0915 | 0922 | S26 | W59 | 9608 | | | 13 | SF | C 2.9 | | | | | | 1.9E-03 |
| LEAR | | 0912 | 0913 | 0926 | S26 | W59 | 9608 | 09 | 11.8 | 14 | SF | | 3 | E | | 38 | | F |
| GOES | | 1020 | 1049 | 1105 | | | | | | 45 | | C 2.8 | | | | | | 5.8E-03 |
| GOES | | 1333 | 1353 | 1405 | | | 9616 | | | 32 | | C 8.9 | | | | | | 1.1E-02 |
| RAMY | | 1337 | 1337 | 1346 | N15 | W09 | 9619 | 09 | 15.9 | 9 | SF | | 3 | E | | 44 | | |
| RAMY | | 1345 | 1350 | 1424 | S13 | E15 | 9616 | 09 | 17.7 | 39 | 1F | | 3 | E | | 143 | | F |
| RAMY | | 1358 | 1359 | 1408 | S29 | W61 | 9608 | 09 | 11.8 | 10 | SF | | 3 | E | | 41 | | |
| HOLL | | 1400 | 1401 | 1406 | S28 | W58 | 9608 | 09 | 12.0 | 6 | SF | | 3 | E | | 25 | | F |
| HOLL | | 1401 | 1404 | 1425 | S13 | E15 | 9616 | 09 | 17.7 | 24 | SF | | 3 | E | | 52 | | F |
| HOLL | | 1547 | 1547 | 1551 | S30 | W58 | 9608 | 09 | 12.1 | 4 | SF | | 3 | E | | 10 | | |
| GOES | | 1604 | 1610 | 1618 | S27 | W65 | 9608 | | | 14 | SF | C 3.1 | | | | | | 2.3E-03 |
| RAMY | | 1606 | 1607 | 1623 | S30 | W70 | 9608 | 09 | 11.2 | 17 | SF | | 3 | E | | 14 | | |
| HOLL | | 1606 | 1608 | 1628 | S27 | W65 | 9608 | 09 | 11.6 | 22 | SF | | 3 | E | | 18 | | |
| HOLL | | 1629 | 1633 | 1637 | S27 | W66 | 9608 | 09 | 11.5 | 8 | SF | | 3 | E | | 14 | | |
| HOLL | | 1641 | 1647 | 1702 | S27 | W65 | 9608 | 09 | 11.6 | 21 | SF | | 3 | E | | 22 | | |
| RAMY | | 1644 | 1647 | 1653 | S29 | W70 | 9608 | 09 | 11.2 | 9 | SF | | 3 | E | | 16 | | |
| GOES | | 1644 | 1648 | 1652 | S29 | W70 | 9608 | | | 8 | SF | C 2.9 | | | | | | 1.4E-03 |
| HOLL | | 1647 | 1647 | 1657 | N17 | W10 | 9619 | 09 | 15.9 | 10 | SF | | 3 | E | | 12 | | |
| HOLL | | 1658 | 1700 | 1709 | N17 | W10 | 9619 | 09 | 15.9 | 11 | SF | | 3 | E | | 13 | | |
| GOES | | 1706 | 1712 | 1719 | S27 | W65 | 9608 | | | 13 | SF | C 4.8 | | | | | | 3.1E-03 |
| RAMY | | 1709 | 1712 | 1731 | S30 | W68 | 9608 | 09 | 11.4 | 22 | SF | | 3 | E | | 26 | | F |
| HOLL | | 1709 | 1713 | 1733 | S27 | W65 | 9608 | 09 | 11.6 | 24 | SF | | 3 | E | | 30 | | |
| RAMY | | 1750 | 1754 | 1804 | N16 | W11 | 9619 | 09 | 15.9 | 14 | SF | | 3 | E | | 13 | | F |
| HOLL | | 1750 | 1754 | 1815 | N17 | W11 | 9619 | 09 | 15.9 | 25 | SF | | 3 | E | | 25 | | |
| GOES | | 1837 | 1847 | 1901 | S13 | E12 | 9616 | | | 24 | SF | C 3.5 | | | | | | 4.3E-03 |
| HOLL | | 1841 | 1842 | 1923 | S13 | E12 | 9616 | 09 | 17.7 | 42 | SF | | 3 | E | | 60 | | |
| RAMY | | 1841 | 1846 | 1915 | S13 | E12 | 9616 | 09 | 17.7 | 34 | SF | | 3 | E | | 42 | | |
| HOLL | | 2126 | 2127 | 2132 | N19 | W80 | 9612 | 09 | 10.8 | 6 | SF | | 3 | E | | 31 | | |
| LEAR | | 2341 | 2346 | 2402 | S13 | E11 | 9616 | 09 | 17.8 | 21 | 1F | | 3 | E | | 147 | | |
| GOES | | 2347 | 2350 | 2355 | S13 | E11 | 9616 | | | 8 | 1F | C 4.1 | | | | | | 1.7E-03 |
| GOES | 17 | 0204 | 0207 | 0210 | | | | | | 6 | | C 3.9 | | | | | | 1.2E-03 |
| GOES | | 0429 | 0502 | 0523 | | | | | | 54 | | C 4.9 | | | | | | 1.1E-02 |
| GOES | | 0542 | 0546 | 0549 | | | | | | 7 | | C 4.4 | | | | | | 1.5E-03 |
| GOES | | 0647 | 0653 | 0700 | S30 | W73 | 9608 | | | 13 | SF | C 3.6 | | | | | | 2.4E-03 |
| LEAR | | 0652 | 0652 | 0700 | S30 | W73 | 9608 | 09 | 11.5 | 8 | SF | | 3 | E | | 31 | | |
| GOES | | 0818 | 0825 | 0834 | S14 | E04 | 9616 | | | 16 | 2N | M 1.5 | | | | | | 9.8E-03 |
| LEAR | | 0820 | 0824 | 0900 | S14 | E02 | 9616 | 09 | 17.5 | 40 | 2N | | 3 | E | | 427 | | UE |
| SVTO | | 0821 | 0824 | 0859 | S14 | E04 | 9616 | 09 | 17.6 | 38 | 2N | | 3 | E | | 327 | | UF |
| GOES | | 0926 | 0941 | 0948 | N15 | E65 | 9621 | | | 22 | SF | C 7.0 | | | | | | 7.4E-03 |
| SVTO | | 0928 | 0930U | 0941D | N17 | E69 | 9621 | 09 | 22.6 | 13D | SF | | 2 | E | | 24 | | |
| LEAR | | 0929 | 0931 | 0942 | N15 | E65 | 9621 | 09 | 22.3 | 13 | SF | | 3 | E | | 54 | | F |
| GOES | | 1111 | 1116 | 1121 | | | | | | 10 | | C 3.7 | | | | | | 2.0E-03 |
| GOES | | 1243 | 1253 | 1259 | | | | | | 16 | | C 3.6 | | | | | | 3.1E-03 |
| GOES | | 1429 | 1439 | 1450 | | | | | | 21 | | C 3.3 | | | | | | 3.7E-03 |
| HOLL | | 1514 | 1515 | 1519 | S15 | E01 | 9616 | 09 | 17.7 | 5 | SF | | 3 | E | | 16 | | F |
| RAMY | | 1514 | 1516 | 1519 | S14 | E02 | 9616 | 09 | 17.8 | 5 | SF | | 3 | E | | 11 | | F |
| HOLL | | 1537 | 1541 | 1547 | S13 | E02 | 9616 | 09 | 17.8 | 10 | SF | | 3 | E | | 29 | | |
| RAMY | | 1539 | 1542 | 1548 | S13 | E04 | 9616 | 09 | 17.9 | 9 | SF | | 3 | E | | 25 | | F |
| GOES | | 1544 | 1550 | 1554 | S32 | W73 | 9608 | | | 10 | 1N | M 8.1 | | | | | | 2.3E-02 |
| HOLL | | 1548 | 1549 | 1648 | S32 | W73 | 9608 | 09 | 11.9 | 60 | 1N | | 3 | E | | 201 | | F |
| RAMY | | 1548 | 1552 | 1631 | S31 | W67 | 9608 | 09 | 12.4 | 43 | 1F | | 3 | E | | 141 | | F |
| HOLL | | 1725 | 1726 | 1732 | S14 | E00 | 9616 | 09 | 17.7 | 7 | SF | | 3 | E | | 19 | | F |
| GOES | | 1906 | 1910 | 1917 | | | | | | 11 | | C 4.8 | | | | | | 2.9E-03 |
| GOES | | 1938 | 1942 | 1946 | | | | | | 8 | | C 3.3 | | | | | | 1.5E-03 |
| HOLL | | 1939 | 1945 | 2004 | S14 | W02 | 9616 | 09 | 17.7 | 25 | SF | | 3 | E | | 84 | | |
| HOLL | | 1950 | 1958 | 2016 | S31 | W73 | 9608 | 09 | 12.1 | 26 | 1F | | 3 | E | | 121 | | |
| GOES | | 1956 | 2001 | 2007 | S31 | W73 | 9608 | | | 11 | 1F | C 3.3 | | | | | | 2.0E-03 |
| HOLL | | 2021 | 2021 | 2025 | S31 | W72 | 9608 | 09 | 12.2 | 4 | SF | | 3 | E | | 20 | | |
| HOLL | | 2035 | 2037 | 2043 | S14 | W03 | 9616 | 09 | 17.6 | 8 | SF | | 3 | E | | 13 | | |
| HOLL | | 2051 | 2102 | 2108 | S31 | W73 | 9608 | 09 | 12.1 | 17 | SF | | 3 | E | | 32 | | |
| GOES | | 2101 | 2108 | 2111 | S11 | W06 | 9616 | | | 10 | 1N | M 1.0 | | | | | | 4.1E-03 |
| HOLL | | 2104 | 2105 | 2117 | S11 | W06 | 9616 | 09 | 17.4 | 13 | 1N | | 3 | E | | 109 | | F |
| HOLL | | 2129 | 2138 | 2151 | S31 | W73 | 9608 | 09 | 12.1 | 22 | 2N | | 3 | E | | 431 | | |
| GOES | | 2132 | 2146 | 2155 | S31 | W73 | 9608 | | | 23 | 2N | M 1.0 | | | | | | 1.1E-02 |
| GOES | 18 | 0002 | 0008 | 0015 | S32 | W78 | 9608 | | | 13 | SF | M 1.4 | | | | | | 6.9E-03 |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Obs See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOLL | 18 | 0004 | 0005 | 0011 | S32 | W78 | 9608 | 09 | 11.8 | 7 | SF | | 3 | E | | 85 | | |
| LEAR | | 0035 | 0038 | 0047 | S15 | W07 | 9616 | 09 | 17.5 | 12 | SF | | 3 | E | | 25 | | F |
| GOES | | 0135 | 0138 | 0142 | | | | | | 7 | | C 2.5 | | | | | | 9.5E-04 |
| GOES | | 0148 | 0153 | 0159 | | | | | | 11 | | C 8.2 | | | | | | 3.5E-03 |
| GOES | | 0210 | 0225 | 0235 | | | | | | 25 | | C 6.8 | | | | | | 7.9E-03 |
| LEAR | | 0354 | 0354 | 0359 | S30 | W04 | | 09 | 17.8 | 5 | SF | | 3 | E | | 22 | | F |
| GOES | | 0428 | 0439 | 0443 | N14 | E55 | 9621 | | | 15 | SF | C 7.5 | | | | | | 5.3E-03 |
| LEAR | | 0429 | 0439 | 0451 | N14 | E55 | 9621 | 09 | 22.3 | 22 | SF | | 3 | E | | 90 | | F |
| GOES | | 0613 | 0618 | 0623 | | | | | | 10 | | C 6.4 | | | | | | 3.1E-03 |
| GOES | | 0625 | 0628 | 0631 | | | | | | 6 | | C 7.3 | | | | | | 2.2E-03 |
| LEAR | | 0702 | 0703 | 0708 | S11 | W11 | 9616 | 09 | 17.5 | 6 | SF | | 3 | E | | 38 | | |
| SVTO | | 0703 | 0703 | 0707 | S14 | W09 | 9616 | 09 | 17.6 | 4 | SF | | 3 | E | | 14 | | H |
| LEAR | | 0744 | 0749 | 0757 | S15 | W10 | 9616 | 09 | 17.6 | 13 | SF | | 3 | E | | 20 | | F |
| GOES | | 1438 | 1441 | 1445 | | | | | | 7 | | C 6.9 | | | | | | 2.5E-03 |
| GOES | | 1531 | 1538 | 1543 | N15 | E49 | 9620 | | | 12 | 1F | M 1.3 | | | | | | 6.5E-03 |
| HOLL | | 1533 | 1535 | 1624 | N15 | E48 | 9621 | 09 | 22.3 | 51 | SF | | 3 | E | | 90 | | |
| HOLL | | 1533 | 1536 | 1602 | N15 | E49 | 9620 | 09 | 22.3 | 29 | 1F | | 3 | E | | 149 | | F |
| RAMY | | 1534 | 1539 | 1620 | N14 | E50 | 9621 | 09 | 22.4 | 46 | 1F | | 3 | E | | 169 | | FH |
| GOES | | 1549 | 1552 | 1554 | | | | | | 5 | | M 1.0 | | | | | | 2.6E-03 |
| GOES | | 1702 | 1707 | 1709 | S18 | E85 | 9628 | | | 7 | SF | M 1.4 | | | | | | 3.3E-03 |
| HOLL | | 1706 | 1706 | 1713 | S18 | E85 | | 09 | 25.2 | 7 | SF | | 3 | E | | 35 | | |
| GOES | | 1719 | 1723 | 1727 | | | | | | 8 | | C 6.4 | | | | | | 2.8E-03 |
| GOES | | 1842 | 1845 | 1848 | | | | | | 6 | | C 3.7 | | | | | | 1.2E-03 |
| GOES | | 1920 | 1925 | 1929 | | | | | | 9 | | C 4.1 | | | | | | 1.9E-03 |
| GOES | | 1953 | 1957 | 2000 | | | | | | 7 | | C 5.6 | | | | | | 1.8E-03 |
| GOES | | 2044 | 2048 | 2051 | | | | | | 7 | | C 4.9 | | | | | | 1.7E-03 |
| LEAR | 19 | 0310 | 0311 | 0315 | S09 | W22 | 9616 | 09 | 17.5 | 5 | SF | | 3 | E | | 15 | | |
| GOES | | 0338 | 0343 | 0355 | S19 | E73 | 9628 | | | 17 | SF | C 3.3 | | | | | | 2.9E-03 |
| LEAR | | 0352 | 0353 | 0356 | S19 | E73 | 9628 | 09 | 24.7 | 4 | SF | | 3 | E | | 11 | | |
| LEAR | | 0517 | 0519 | 0528 | S11 | W14 | 9616 | 09 | 18.2 | 11 | SF | | 3 | E | | 36 | | FH |
| GOES | | 0659 | 0721 | 0757 | | | | | | 58 | | C 7.2 | | | | | | 2.1E-02 |
| GOES | | 0810 | 0811 | 0813 | N17 | E44 | 9621 | | | 3 | SF | C 6.0 | | | | | | 1.0E-03 |
| SVTO | | 0810 | 0811 | 0819 | N17 | E44 | 9621 | 09 | 22.7 | 9 | SF | | 3 | E | | 34 | | F |
| LEAR | | 0810 | 0811 | 0822 | N16 | E44 | 9621 | 09 | 22.7 | 12 | SF | | 2 | E | | 63 | | F |
| RAMY | | 1157 | 1157 | 1208 | N15 | E38 | 9621 | 09 | 22.4 | 11 | SF | | 3 | E | | 11 | | |
| RAMY | | 1309 | 1311 | 1313 | S19 | E66 | 9628 | 09 | 24.6 | 4 | SF | | 3 | E | | 11 | | |
| GOES | | 1506 | 1607 | 1727 | | | | | | 141 | | C 6.7 | | | | | | 3.8E-02 |
| HOLL | | 1540 | 1541 | 1544 | S14 | W29 | 9616 | 09 | 17.5 | 4 | SF | | 3 | E | | 30 | | |
| RAMY | | 1540 | 1541 | 1544 | S14 | W29 | 9616 | 09 | 17.5 | 4 | SF | | 3 | E | | 30 | | |
| HOLL | | 1641 | 1644 | 1650 | N12 | E32 | 9620 | 09 | 22.1 | 9 | SF | | 3 | E | | 11 | | F |
| GOES | | 1845 | 1852 | 1900 | S19 | E65 | 9628 | | | 15 | SF | C 7.5 | | | | | | 5.3E-03 |
| HOLL | | 1847 | 1852 | 1859 | S19 | E65 | 9628 | 09 | 24.7 | 12 | SF | | 3 | E | | 89 | | F |
| RAMY | | 1848 | 1850 | 1857 | S19 | E66 | 9628 | 09 | 24.8 | 9 | SF | | 3 | E | | 48 | | |
| HOLL | | 2052 | 2054 | 2101 | N11 | E33 | 9620 | 09 | 22.3 | 9 | SF | | 3 | E | | 17 | | |
| HOLL | | 2302 | 2317 | 2333 | N12 | E28 | 9620 | 09 | 22.1 | 31 | SF | | 3 | E | | 61 | | F |
| HOLL | | 2336 | 2340 | 2415 | N25 | E24 | 9626 | 09 | 21.8 | 39 | SF | | 3 | E | | 21 | | |
| LEAR | 20 | 0133 | 0133 | 0136 | S18 | E82 | | 09 | 26.3 | 3 | SF | | 3 | E | | 18 | | |
| GOES | | 0224 | 0232 | 0236 | | | | | | 12 | | C 3.4 | | | | | | 2.2E-03 |
| GOES | | 0503 | 0510 | 0519 | S17 | E57 | 9628 | | | 16 | SF | C 7.8 | | | | | | 5.2E-03 |
| LEAR | | 0506 | 0507 | 0522 | S17 | E57 | 9628 | 09 | 24.5 | 16 | SF | | 3 | E | | 28 | | F |
| GOES | | 0958 | 1031 | 1053 | | | | | | 55 | | C 2.5 | | | | | | 7.0E-03 |
| RAMY | | 1150 | 1152 | 1155 | S20 | E56 | 9628 | 09 | 24.8 | 5 | SF | | 3 | E | | 23 | | |
| GOES | | 1254 | 1303 | 1317 | | | | | | 23 | | C 2.4 | | | | | | 2.9E-03 |
| GOES | | 1435 | 1441 | 1445 | N08 | W10 | | | | 10 | SF | C 3.4 | | | | | | 1.6E-03 |
| HOLL | | 1438 | 1439 | 1451 | N07 | W09 | | 09 | 19.9 | 13 | SF | | 3 | E | | 31 | | F |
| RAMY | | 1438 | 1439 | 1502 | N08 | W10 | | 09 | 19.9 | 24 | SF | | 3 | E | | 28 | | F |
| GOES | | 1550 | 1558 | 1604 | | | | | | 14 | | C 2.2 | | | | | | 1.7E-03 |
| GOES | | 1812 | 1817 | 1821 | N09 | W11 | 9631 | | | 9 | SN | M 1.5 | | | | | | 4.7E-03 |
| RAMY | | 1815 | 1817 | 1849 | N08 | W12 | 9631 | 09 | 19.9 | 34 | SN | | 3 | E | | 63 | | U |
| HOLL | | 1815 | 1818 | 1830 | N09 | W11 | 9631 | 09 | 19.9 | 15 | SN | | 3 | E | | 65 | | U |
| HOLL | | 1830 | 1841 | 1854 | N08 | W11 | 9631 | 09 | 19.9 | 24 | SF | | 3 | E | | 12 | | |
| GOES | | 1848 | 1851 | 1854 | S17 | E54 | 9628 | | | 6 | SF | C 3.8 | | | | | | 1.2E-03 |
| HOLL | | 1850 | 1850 | 1857 | S17 | E54 | 9628 | 09 | 24.9 | 7 | SF | | 3 | E | | 30 | | F |
| HOLL | | 2210 | 2210 | 2217 | N09 | W14 | 9631 | 09 | 19.9 | 7 | SF | | 3 | E | | 20 | | F |
| HOLL | | 2218 | 2218 | 2222 | N08 | W14 | 9631 | 09 | 19.9 | 4 | SF | | 3 | E | | 14 | | |
| HOLL | | 2351 | 2356 | 2418 | N24 | E11 | 9626 | 09 | 21.8 | 27 | SF | | 3 | E | | 20 | | |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Imp See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GOES | 21 | 0117 | 0129 | 0132 | N10 | E14 | 9620 | | | 15 | SF | C 2.5 | | | | | | 1.9E-03 |
| LEAR | | 0124 | 0127 | 0138 | N10 | E14 | 9620 | 09 | 22.1 | 14 | SF | | 2 | E | | 22 | | FH |
| GOES | | 0448 | 0455 | 0502 | N10 | E12 | 9620 | | | 14 | SF | C 4.1 | | | | | | 2.8E-03 |
| LEAR | | 0450 | 0454 | 0517 | N10 | E12 | 9620 | 09 | 22.1 | 27 | SF | | 3 | E | | 96 | | F |
| GOES | | 0636 | 0640 | 0642 | S19 | E63 | 9632 | | | 6 | SF | C 3.1 | | | | | | 8.7E-04 |
| SVTO | | 0640 | 0640 | 0645 | S18 | E63 | 9632 | 09 | 26.1 | 5 | SF | | 3 | E | | 27 | | |
| LEAR | | 0640 | 0641 | 0646 | S19 | E63 | 9632 | 09 | 26.1 | 6 | SF | | 2 | E | | 54 | | |
| GOES | | 0644 | 0702 | 0707 | N07 | W21 | 9631 | | | 23 | SF | C 7.7 | | | | | | 5.9E-03 |
| SVTO | | 0653 | 0702 | 0744 | N08 | W19 | 9631 | 09 | 19.9 | 51 | SF | | 3 | E | | 54 | | |
| LEAR | | 0659 | 0703 | 0718 | N07 | W21 | 9631 | 09 | 19.7 | 19 | SF | | 2 | E | | 62 | | |
| RAMY | | 1127 | 1131 | 1230 | S20 | E43 | 9628 | 09 | 24.8 | 63 | SF | | 3 | E | | 39 | | F |
| RAMY | | 1142 | 1146 | 1156 | N25 | E08 | 9626 | 09 | 22.1 | 14 | SF | | 3 | E | | 20 | | |
| RAMY | | 1217 | 1224 | 1230 | S19 | E62 | 9632 | 09 | 26.2 | 13 | SF | | 3 | E | | 63 | | H |
| RAMY | | 1526 | 1531 | 1548 | N08 | W23 | 9631 | 09 | 19.9 | 22 | SF | | 3 | E | | 20 | | F |
| GOES | | 1642 | 1645 | 1647 | S17 | E58 | 9632 | | | 5 | SF | C 3.6 | | | | | | 9.3E-04 |
| HOLL | | 1644 | 1645 | 1650 | S17 | E58 | 9632 | 09 | 26.1 | 6 | SF | | 3 | E | | 18 | | |
| RAMY | | 1644 | 1646 | 1650 | S17 | E58 | 9632 | 09 | 26.1 | 6 | SF | | 3 | E | | 17 | | |
| HOLL | | 1943 | 1944 | 1951 | N08 | W27 | 9631 | 09 | 19.8 | 8 | SF | | 3 | E | | 19 | | |
| HOLL | | 1945 | 1949 | 2003 | N13 | W16 | 9622 | 09 | 20.6 | 18 | SF | | 3 | E | | 26 | | F |
| GOES | | 2008 | 2012 | 2018 | N08 | W26 | 9631 | | | 10 | SF | C 3.8 | | | | | | 2.0E-03 |
| HOLL | | 2010 | 2011 | 2028 | N08 | W26 | 9631 | 09 | 19.9 | 18 | SF | | 3 | E | | 47 | | |
| HOLL | | 2024 | 2026 | 2032 | N17 | E15 | 9621 | 09 | 23.0 | 8 | SF | | 3 | E | | 19 | | F |
| HOLL | | 2109 | 2110 | 2114 | S11 | W58 | 9616 | 09 | 17.5 | 5 | SF | | 3 | E | | 17 | | |
| HOLL | | 2129 | 2134 | 2204 | N13 | W17 | 9622 | 09 | 20.6 | 35 | SF | | 3 | E | | 75 | | F |
| HOLL | | 2229 | 2230 | 2244 | N08 | W28 | 9631 | 09 | 19.8 | 15 | SF | | 3 | E | | 23 | | |
| HOLL | | 2325 | 2325 | 2333 | N13 | W18 | 9622 | 09 | 20.6 | 8 | SF | | 3 | E | | 32 | | |
| GOES | 22 | 0033 | 0037 | 0046 | | | | | | 13 | | C 3.1 | | | | | | 2.2E-03 |
| GOES | | 0444 | 0454 | 0509 | | | | | | 25 | | C 3.4 | | | | | | 4.4E-03 |
| GOES | | 0541 | 0544 | 0547 | S09 | W65 | 9616 | | | 6 | SF | C 4.9 | | | | | | 1.3E-03 |
| LEAR | | 0543 | 0546 | 0551 | S09 | W65 | 9616 | 09 | 17.3 | 8 | SF | | 3 | E | | 41 | | |
| GOES | | 0638 | 0645 | 0653 | S20 | E48 | 9632 | | | 15 | SF | C 8.1 | | | | | | 5.0E-03 |
| SVTO | | 0641 | 0641 | 0658 | S18 | E49 | 9632 | 09 | 26.0 | 17 | SF | | 3 | E | | 28 | | F |
| LEAR | | 0641 | 0643 | 0649 | S20 | E48 | 9632 | 09 | 25.9 | 8 | SF | | 3 | E | | 17 | | F |
| SVTO | | 0643 | 0643 | 0703 | N14 | W23 | 9622 | 09 | 20.5 | 20 | SF | | 3 | E | | 55 | | F |
| LEAR | | 0643 | 0645 | 0656 | N14 | W24 | 9622 | 09 | 20.5 | 13 | SF | | 2 | E | | 53 | | F |
| SVTO | | 0836 | 0837 | 0841 | N15 | E06 | 9621 | 09 | 22.8 | 5 | SF | | 3 | E | | 12 | | |
| LEAR | | 0841 | 0843 | 0850 | S09 | W54 | 9616 | 09 | 18.3 | 9 | SF | | 2 | E | | 20 | | |
| SVTO | | 0842 | 0844 | 0850 | S11 | W55 | 9616 | 09 | 18.2 | 8 | SF | | 3 | E | | 12 | | |
| LEAR | | 0920 | 0924 | 0935 | N24 | W08 | 9626 | 09 | 21.8 | 15 | SF | | 2 | E | | 25 | | F |
| SVTO | | 0920 | 0924 | 0938 | N24 | W07 | 9626 | 09 | 21.8 | 18 | SF | | 3 | E | | 31 | | F |
| SVTO | | 0923 | 0924 | 0934 | N13 | W26 | 9622 | 09 | 20.4 | 11 | SF | | 3 | E | | 21 | | F |
| LEAR | | 0923 | 0925 | 0932 | N14 | W26 | 9622 | 09 | 20.4 | 9 | SF | | 2 | E | | 16 | | F |
| GOES | | 1048 | 1055 | 1102 | S18 | E46 | 9632 | | | 14 | SF | C 3.9 | | | | | | 2.7E-03 |
| SVTO | | 1050 | 1054 | 1102 | S18 | E46 | 9632 | 09 | 25.9 | 12 | SF | | 3 | E | | 46 | | F |
| RAMY | | 1214 | 1214 | 1224 | N08 | W37 | 9631 | 09 | 19.7 | 10 | SF | | 3 | E | | 11 | | F |
| GOES | | 1219 | 1222 | 1226 | S16 | E51 | 9632 | | | 7 | SF | C 2.5 | | | | | | 9.4E-04 |
| RAMY | | 1222 | 1224 | 1229 | S16 | E51 | 9632 | 09 | 26.4 | 7 | SF | | 3 | E | | 15 | | F |
| RAMY | | 1355 | 1355 | 1402 | S18 | E49 | 9632 | 09 | 26.3 | 7 | SF | | 3 | E | | 11 | | F |
| HOLL | | 1355 | 1356 | 1412 | S18 | E48 | 9632 | 09 | 26.2 | 17 | SF | | 3 | E | | 16 | | F |
| RAMY | | 1407 | 1408 | 1410 | S18 | E49 | 9632 | 09 | 26.3 | 3 | SF | | 3 | E | | 21 | | F |
| HOLL | | 1455 | 1457 | 1500 | S18 | E29 | 9628 | 09 | 24.8 | 5 | SF | | 3 | E | | 34 | | |
| RAMY | | 1455 | 1457 | 1500 | S17 | E28 | 9628 | 09 | 24.7 | 5 | SF | | 3 | E | | 13 | | F |
| RAMY | | 1501 | 1507 | 1546 | S17 | E51 | 9632 | 09 | 26.5 | 45 | SF | | 3 | E | | 36 | | F |
| GOES | | 1502 | 1506 | 1512 | S17 | E51 | 9632 | | | 10 | SF | C 5.0 | | | | | | 2.7E-03 |
| HOLL | | 1502 | 1520 | 1545 | S18 | E51 | 9632 | 09 | 26.5 | 43 | SF | | 3 | E | | 37 | | |
| SVTO | | 1517E | 1518 | 1540 | S17 | E49 | 9632 | 09 | 26.4 | 23D | SF | | 3 | E | | 22 | | F |
| HOLL | | 1554 | 1554 | 1600 | N13 | W27 | 9622 | 09 | 20.6 | 6 | SF | | 3 | E | | 13 | | |
| HOLL | | 1706 | 1707 | 1713 | N01 | E18 | 9627 | 09 | 24.0 | 7 | SF | | 3 | E | | 20 | | |
| HOLL | | 1717 | 1718 | 1723 | N13 | W33 | 9622 | 09 | 20.2 | 6 | SF | | 3 | E | | 24 | | |
| RAMY | | 1718 | 1718 | 1722 | N12 | W33 | 9622 | 09 | 20.2 | 4 | SF | | 3 | E | | 15 | | |
| HOLL | | 1805 | 1810 | 1823 | S15 | E26 | 9628 | 09 | 24.7 | 18 | SF | | 3 | E | | 59 | | F |
| RAMY | | 1808 | 1811 | 1817 | S16 | E26 | 9628 | 09 | 24.7 | 9 | SF | | 3 | E | | 35 | | F |
| GOES | | 1808 | 1817 | 1832 | S16 | E26 | 9628 | | | 24 | SF | C 5.4 | | | | | | 6.5E-03 |
| HOLL | | 1816 | 1825 | 1838 | S18 | E47 | 9632 | 09 | 26.3 | 22 | SF | | 3 | E | | 30 | | F |
| HOLL | | 1919 | 1921 | 1929 | S20 | E44 | 9632 | 09 | 26.2 | 10 | SF | | 3 | E | | 25 | | |
| HOLL | | 2000 | 2008 | 2016 | S17 | E25 | 9628 | 09 | 24.7 | 16 | 1F | | 3 | E | | 104 | | |
| HOLL | | 2008 | 2012 | 2031 | N11 | W32 | 9622 | 09 | 20.4 | 23 | SF | | 3 | E | | 39 | | F |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOLL | 22 | 2028 | 2030 | 2035 | S17 | E26 | 9628 | 09 | 24.8 | 7 | SF | | 3 | E | | 10 | | |
| HOLL | | 2127 | 2127 | 2130 | S18 | E25 | 9628 | 09 | 24.8 | 3 | SF | | 3 | E | | 23 | | |
| GOES | | 2201 | 2207 | 2218 | N12 | W32 | 9622 | | | 17 | SF | C 3.7 | | | | | | 3.3E-03 |
| HOLL | | 2203 | 2205 | 2229 | N12 | W32 | 9622 | 09 | 20.5 | 26 | SF | | 3 | E | | 81 | | F |
| LEAR | | 2321 | 2321 | 2331 | S15 | E21 | 9628 | 09 | 24.6 | 10 | SF | | 3 | E | | 14 | | F |
| LEAR | 23 | 0003 | 0006 | 0013 | S15 | E20 | 9628 | 09 | 24.5 | 10 | SF | | 3 | E | | 42 | | F |
| GOES | | 0102 | 0106 | 0108 | N14 | W36 | 9622 | | | 6 | SF | C 4.4 | | | | | | 1.3E-03 |
| LEAR | | 0104 | 0107 | 0109 | N14 | W36 | 9622 | 09 | 20.3 | 5 | SF | | 3 | E | | 26 | | |
| LEAR | | 0158 | 0159 | 0203 | N12 | W35 | 9622 | 09 | 20.4 | 5 | SF | | 3 | E | | 10 | | F |
| LEAR | | 0250 | 0301 | 0313 | N13 | W31 | 9622 | 09 | 20.8 | 23 | SF | | 3 | E | | 23 | | F |
| SVTO | | 0716 | 0718 | 0721 | N14 | W39 | 9622 | 09 | 20.3 | 5 | SF | | 3 | E | | 10 | | |
| LEAR | | 0716 | 0719 | 0723 | N12 | W37 | 9622 | 09 | 20.5 | 7 | SF | | 3 | E | | 15 | | |
| GOES | | 0957 | 1002 | 1008 | S15 | E13 | 9628 | | | 11 | SF | C 3.2 | | | | | | 1.9E-03 |
| SVTO | | 0959 | 0959 | 1012 | S15 | E13 | 9628 | 09 | 24.4 | 13 | SF | | 3 | E | | 25 | | F |
| RAMY | | 1126 | 1136 | 1157 | S18 | E40 | 9632 | 09 | 26.5 | 31 | SN | | 3 | E | | 81 | | |
| GOES | | 1131 | 1137 | 1143 | S18 | E40 | 9632 | | | 12 | SN | M 1.1 | | | | | | 5.4E-03 |
| SVTO | | 1134 | 1136 | 1149 | S16 | E37 | 9632 | 09 | 26.3 | 15 | SF | | 3 | E | | 45 | | F |
| GOES | | 1349 | 1359 | 1405 | S16 | E36 | 9632 | | | 16 | SF | C 3.4 | | | | | | 2.8E-03 |
| RAMY | | 1352 | 1422 | 1524 | S18 | E38 | 9632 | 09 | 26.5 | 92 | SF | | 3 | E | | 57 | | F |
| SVTO | | 1359 | 1359 | 1405 | S16 | E36 | 9632 | 09 | 26.3 | 6 | SF | | 3 | E | | 11 | | F |
| GOES | | 1417 | 1426 | 1439 | S16 | E36 | 9632 | | | 22 | SF | C 6.5 | | | | | | 6.6E-03 |
| SVTO | | 1418 | 1422 | 1517D | S16 | E36 | 9632 | 09 | 26.3 | 59D | SF | | 3 | E | | 43 | | F |
| GOES | | 1539 | 1544 | 1558 | S21 | E20 | 9628 | | | 19 | SF | C 2.5 | | | | | | 2.5E-03 |
| HOLL | | 1541 | 1542 | 1549 | S21 | E20 | 9628 | 09 | 25.2 | 8 | SF | | 3 | E | | 23 | | F |
| RAMY | | 1542 | 1543 | 1548 | S21 | E20 | 9628 | 09 | 25.2 | 6 | SF | | 3 | E | | 18 | | F |
| GOES | | 1645 | 1648 | 1654 | | | | | | 9 | | C 2.0 | | | | | | 1.0E-03 |
| HOLL | | 1704 | 1705 | 1713 | S15 | E10 | 9628 | 09 | 24.5 | 9 | SF | | 3 | E | | 24 | | |
| HOLL | | 1838 | 1840 | 1845 | S21 | E19 | 9628 | 09 | 25.2 | 7 | SF | | 3 | E | | 17 | | F |
| HOLL | | 2044 | 2047 | 2053 | N09 | W43 | 9622 | 09 | 20.6 | 9 | SF | | 3 | E | | 36 | | |
| HOLL | | 2208 | 2209 | 2225 | S21 | E18 | 9628 | 09 | 25.3 | 17 | SF | | 3 | E | | 14 | | U |
| GOES | | 2318 | 2323 | 2327 | S16 | E30 | 9632 | | | 9 | SF | C 3.3 | | | | | | 1.6E-03 |
| LEAR | | 2323 | 2325 | 2340 | S16 | E30 | 9632 | 09 | 26.2 | 17 | SF | | 3 | E | | 20 | | F |
| HOLL | | 2354 | 2354 | 2359 | S20 | E16 | 9628 | 09 | 25.2 | 5 | SF | | 3 | E | | 24 | | F |
| LEAR | 24 | 0016 | 0021 | 0032 | S16 | E06 | 9628 | 09 | 24.5 | 16 | SF | | 3 | E | | 53 | | F |
| GOES | | 0032 | 0035 | 0037 | S15 | E05 | 9628 | | | 5 | SF | C 2.6 | | | | | | 7.0E-04 |
| LEAR | | 0034 | 0035 | 0044 | S15 | E05 | 9628 | 09 | 24.4 | 10 | SF | | 3 | E | | 34 | | F |
| GOES | | 0039 | 0042 | 0046 | | | | | | 7 | | C 3.3 | | | | | | 1.2E-03 |
| GOES | | 0343 | 0348 | 0356 | | | | | | 13 | | C 2.9 | | | | | | 2.1E-03 |
| GOES | | 0447 | 0451 | 0455 | N12 | E73 | | | | 8 | SF | C 5.1 | | | | | | 1.9E-03 |
| LEAR | | 0449 | 0450 | 0456 | N12 | E73 | | 09 | 29.7 | 7 | SF | | 3 | E | | 45 | | F |
| GOES | | 0608 | 0613 | 0620 | S22 | E11 | 9628 | | | 12 | SF | C 2.8 | | | | | | 1.8E-03 |
| LEAR | | 0611 | 0613 | 0617 | S22 | E11 | 9628 | 09 | 25.1 | 6 | SF | | 3 | E | | 12 | | F |
| GOES | | 0809 | 0812 | 0817 | N21 | E10 | 9635 | | | 8 | SF | C 2.7 | | | | | | 1.2E-03 |
| LEAR | | 0811 | 0811 | 0818 | N21 | E10 | 9635 | 09 | 25.1 | 7 | SF | | 3 | E | | 22 | | |
| LEAR | | 0913 | 0915 | 0919 | N13 | E75 | | 09 | 30.0 | 6 | SF | | 3 | E | | 30 | | |
| LEAR | | 0922 | 0947 | 0949D | S20 | E22 | 9632 | 09 | 26.1 | 27D | SF | | 3 | E | | 73 | | |
| GOES | | 0932 | 1038 | 1109 | S16 | E23 | 9632 | | | 97 | 2B | X 2.6 | | | | | | 6.3E-01 |
| SVTO | | 0936E | 1019 | 1217 | S16 | E23 | 9632 | 09 | 26.1 | 161D | 2B | | 2 | E | | 284 | | F |
| RAMY | | 1202 | 1207 | 1210 | S17 | E74 | | 09 | 30.1 | 8 | SF | | 3 | E | | 31 | | |
| SVTO | | 1203 | 1203 | 1209 | S16 | E75 | | 09 | 30.2 | 6 | SF | | 2 | E | | 11 | | |
| RAMY | | 1507 | 1509 | 1529 | S22 | E06 | 9628 | 09 | 25.1 | 22 | SF | | 3 | E | | 84 | | |
| HOLL | | 1508 | 1509 | 1519 | S22 | E08 | 9628 | 09 | 25.2 | 11 | SF | | 3 | E | | 82 | | |
| HOLL | | 1624 | 1629 | 1642 | N17 | W21 | 9621 | 09 | 23.1 | 18 | SF | | 3 | E | | 26 | | |
| RAMY | | 1644 | 1645 | 1650 | S18 | E01 | 9628 | 09 | 24.8 | 6 | SF | | 3 | E | | 20 | | |
| RAMY | | 1658 | 1659 | 1714 | N08 | E66 | 9636 | 09 | 29.6 | 16 | SF | | 3 | E | | 60 | | |
| HOLL | | 1700E | 1700U | 1720 | N10 | E66 | 9636 | 09 | 29.7 | 20D | 1F | | 3 | E | | 159 | | |
| RAMY | | 1721 | 1722 | 1728 | S19 | E02 | 9628 | 09 | 24.9 | 7 | SF | | 3 | E | | 12 | | F |
| RAMY | | 1723 | 1723 | 1727 | N10 | E67 | 9636 | 09 | 29.7 | 4 | SF | | 3 | E | | 21 | | |
| RAMY | | 1737 | 1738U | 2057D | S17 | E01 | 9628 | 09 | 24.8 | 200D | SF | | 3 | E | | 30 | | |
| HOLL | | 1737 | 1740 | 1807 | S18 | E03 | 9628 | 09 | 25.0 | 30 | SF | | 3 | E | | 32 | | F |
| GOES | | 1820 | 1836 | 1843 | | | | | | 23 | | C 7.6 | | | | | | 8.6E-03 |
| HOLL | | 1835 | 1852 | 1900 | S20 | E05 | 9628 | 09 | 25.1 | 25 | SF | | 3 | E | | 44 | | F |
| HOLL | | 1939 | 1939 | 1942 | N11 | E69 | 9636 | 09 | 30.0 | 3 | SF | | 3 | E | | 17 | | |
| HOLL | | 1950 | 1956 | 2015 | S17 | E05 | 9628 | 09 | 25.2 | 25 | SF | | 3 | E | | 36 | | F |
| HOLL | | 2028 | 2031 | 2041 | S16 | E05 | 9628 | 09 | 25.2 | 13 | SF | | 3 | E | | 11 | | F |
| HOLL | | 2139 | 2139 | 2143 | S21 | E00 | 9628 | 09 | 24.9 | 4 | SF | | 3 | E | | 29 | | |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Imp See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOLL | 24 | 2205 | 2212 | 2223 | S16 | E04 | 9628 | 09 | 25.2 | 18 | SF | | 3 | E | | 57 | | F |
| HOLL | | 2207 | 2207 | 2213 | N08 | W67 | 9631 | 09 | 19.9 | 6 | SF | | 3 | E | | 23 | | F |
| HOLL | | 2257 | 2259 | 2301 | S12 | W88 | 9616 | 09 | 18.3 | 4 | SF | | 3 | E | | 63 | | |
| HOLL | | 2318 | 2318 | 2323 | N11 | E59 | 9636 | 09 | 29.4 | 5 | SF | | 3 | E | | 21 | | |
| GOES | | 2335 | 2405 | 2418 | S16 | W05 | 9628 | | | 43 | 1F | C 8.6 | | | | | | 1.5E-02 |
| HOLL | | 2340 | 2403 | 2418 | S16 | W05 | 9628 | 09 | 24.6 | 38 | 1F | | 3 | E | | 122 | | UF |
| LEAR | 25 | 0029E | 0029U | 0051 | S17 | W07 | 9628 | 09 | 24.5 | 22D | SF | | 3 | E | | 74 | | FH |
| LEAR | | 0133 | 0133 | 0138 | S14 | E03 | 9628 | 09 | 25.3 | 5 | SF | | 3 | E | | 13 | | |
| LEAR | | 0141 | 0151 | 0208 | S14 | E03 | 9628 | 09 | 25.3 | 27 | SF | | 3 | E | | 49 | | |
| GOES | | 0143 | 0148 | 0154 | S14 | E03 | 9628 | | | 11 | SF | M 1.1 | | | | | | 5.2E-03 |
| LEAR | | 0349 | 0351 | 0356 | N14 | E76 | 9636 | 09 | 30.9 | 7 | SF | | 3 | E | | 57 | | |
| GOES | | 0424 | 0440 | 0452 | S18 | W01 | 9628 | | | 28 | 1N | M 7.6 | | | | | | 7.2E-02 |
| LEAR | | 0426 | 0440 | 0506 | S18 | W01 | 9628 | 09 | 25.1 | 40 | 1N | | 3 | E | | 144 | | ZF |
| LEAR | | 0455 | 0458 | 0503 | N14 | E76 | 9636 | 09 | 30.9 | 8 | SF | | 3 | E | | 26 | | |
| LEAR | | 0511 | 0511 | 0530 | S18 | E06 | 9628 | 09 | 25.7 | 19 | SF | | 2 | E | | 48 | | F |
| LEAR | | 0517 | 0518 | 0520 | S17 | E17 | 9632 | 09 | 26.5 | 3 | SF | | 3 | E | | 14 | | |
| SVTO | | 0644 | 0645 | 0702 | N17 | W30 | 9621 | 09 | 23.0 | 18 | SF | | 3 | E | | 13 | | F |
| LEAR | | 0657 | 0657 | 0702 | N18 | W29 | 9621 | 09 | 23.1 | 5 | SF | | 2 | E | | 17 | | F |
| SVTO | | 0817 | 0823 | 0835 | S16 | W02 | 9628 | 09 | 25.2 | 18 | SF | | 3 | E | | 24 | | F |
| GOES | | 1018 | 1027 | 1031 | S16 | W03 | 9628 | | | 13 | 1N | M 2.0 | | | | | | 1.0E-02 |
| SVTO | | 1020 | 1027 | 1040 | S16 | W03 | 9628 | 09 | 25.2 | 20 | 1N | | 3 | E | | 146 | | H |
| SVTO | | 1043 | 1048 | 1051 | S15 | W04 | 9628 | 09 | 25.1 | 8 | SF | | 3 | E | | 12 | | |
| RAMY | | 1143 | 1144 | 1211 | S18 | W13 | 9628 | 09 | 24.5 | 28 | SF | | 3 | E | | 42 | | F |
| SVTO | | 1152E | 1155U | 1200 | S18 | W10 | 9628 | 09 | 24.7 | 8D | SF | | 3 | E | | 20 | | F |
| RAMY | | 1400 | 1400 | 1404 | S17 | W05 | 9628 | 09 | 25.2 | 4 | SF | | 3 | E | | 11 | | |
| RAMY | | 1642 | 1642 | 1651 | S16 | W15 | 9628 | 09 | 24.5 | 9 | SF | | 3 | E | | 14 | | F |
| RAMY | | 1649 | 1651 | 1704 | S16 | E07 | 9632 | 09 | 26.2 | 15 | SF | | 3 | E | | 12 | | F |
| HOLL | | 1654 | 1657 | 1706 | S16 | E07 | 9632 | 09 | 26.2 | 12 | SF | | 3 | E | | 11 | | |
| GOES | | 1711 | 1717 | 1722 | S17 | W08 | 9628 | | | 11 | SF | C 7.0 | | | | | | 3.4E-03 |
| HOLL | | 1713 | 1716 | 1730 | S17 | W08 | 9628 | 09 | 25.1 | 17 | SF | | 3 | E | | 79 | | U |
| RAMY | | 1713 | 1718 | 1730 | S17 | W08 | 9628 | 09 | 25.1 | 17 | SN | | 3 | E | | 74 | | FH |
| HOLL | | 1726 | 1730 | 1745 | S20 | E05 | 9632 | 09 | 26.1 | 19 | SF | | 3 | E | | 23 | | F |
| GOES | | 1843 | 1853 | 1906 | S20 | W08 | 9628 | | | 23 | SF | C 2.5 | | | | | | 3.2E-03 |
| HOLL | | 1847 | 1850 | 1908 | S20 | W08 | 9628 | 09 | 25.2 | 21 | SF | | 3 | E | | 26 | | |
| RAMY | | 1848 | 1850 | 1907 | S20 | W11 | 9628 | 09 | 24.9 | 19 | SF | | 3 | E | | 13 | | F |
| HOLL | | 1913 | 1918 | 1925 | S21 | W11 | 9628 | 09 | 24.9 | 12 | SF | | 3 | E | | 16 | | |
| HOLL | | 1937 | 1938 | 1958 | S16 | W09 | 9628 | 09 | 25.1 | 21 | SF | | 3 | E | | 33 | | |
| HOLL | | 2009 | 2009 | 2019 | S19 | E10 | 9632 | 09 | 26.6 | 10 | SF | | 3 | E | | 20 | | F |
| HOLL | | 2015 | 2054 | 2158 | S20 | W14 | 9628 | 09 | 24.8 | 103 | SF | | 3 | E | | 23 | | |
| GOES | | 2024 | 2027 | 2029 | | | 9628 | | | 5 | | C 4.2 | | | | | | 9.5E-04 |
| HOLL | | 2308 | 2310 | 2314 | S16 | W12 | 9628 | 09 | 25.0 | 6 | SF | | 3 | E | | 12 | | |
| HOLL | | 2356 | 2402 | 2415 | S19 | E08 | 9632 | 09 | 26.6 | 19 | SF | | 3 | E | | 20 | | F |
| GOES | 26 | 0252 | 0258 | 0303 | | | | | | 11 | | M 1.8 | | | | | | 8.9E-03 |
| SVTO | | 0637 | 0639 | 0725 | S16 | W23 | 9628 | 09 | 24.5 | 48 | SF | | 3 | E | | 62 | | F |
| GOES | | 0639 | 0709 | 0723 | S16 | W23 | 9628 | | | 44 | SF | C 4.0 | | | | | | 8.6E-03 |
| GOES | | 0839 | 0843 | 0850 | | | | | | 11 | | C 3.8 | | | | | | 2.2E-03 |
| RAMY | | 1118 | 1118 | 1131 | N12 | W57 | 9620 | 09 | 22.2 | 13 | SF | | 3 | E | | 19 | | |
| GOES | | 1204 | 1224 | 1254 | N13 | E51 | 9636 | | | 50 | SF | C 5.7 | | | | | | 1.3E-02 |
| RAMY | | 1228 | 1229 | 1305 | N13 | E51 | 9636 | 09 | 30.4 | 37 | SF | | 3 | E | | 24 | | F |
| HOLL | | 1615 | 1631 | 1715 | N14 | E55 | 9636 | 09 | 30.8 | 60 | SF | | 3 | E | | 58 | | F |
| RAMY | | 1621 | 1632 | 1642 | N16 | E53 | 9636 | 09 | 30.7 | 21 | SF | | 3 | E | | 11 | | F |
| HOLL | | 1712 | 1713 | 1740 | S17 | W21 | 9628 | 09 | 25.1 | 28 | SF | | 3 | E | | 14 | | FH |
| RAMY | | 1713 | 1715 | 1740 | S17 | W21 | 9628 | 09 | 25.1 | 27 | SF | | 3 | E | | 52 | | F |
| HOLL | | 1910 | 1912 | 1916 | N11 | E32 | 9634 | 09 | 29.2 | 6 | SF | | 3 | E | | 14 | | F |
| HOLL | | 1932 | 1938 | 2002 | S18 | W22 | 9628 | 09 | 25.1 | 30 | SF | | 3 | E | | 52 | | F |
| HOLL | | 1953 | 1953 | 2000 | N02 | W54 | 9624 | 09 | 22.8 | 7 | SF | | 3 | E | | 31 | | F |
| HOLL | | 2118 | 2119 | 2128 | S20 | W24 | 9628 | 09 | 25.0 | 10 | SF | | 3 | E | | 21 | | |
| HOLL | | 2150 | 2152 | 2205 | N26 | W52 | 9629 | 09 | 22.9 | 15 | SF | | 3 | E | | 34 | | UF |
| HOLL | | 2157 | 2158 | 2203 | S19 | W05 | 9632 | 09 | 26.5 | 6 | SF | | 3 | E | | 12 | | |
| HOLL | | 2227 | 2227 | 2248 | S20 | W26 | 9628 | 09 | 24.9 | 21 | SF | | 3 | E | | 19 | | |
| HOLL | | 2236 | 2255 | 2347 | N11 | E36 | 9636 | 09 | 29.6 | 71 | SF | | 3 | E | | 60 | | F |
| HOLL | | 2239 | 2240 | 2256 | N00 | W39 | 9627 | 09 | 24.0 | 17 | SF | | 3 | E | | 15 | | F |
| HOLL | | 2249 | 2257 | 2313 | N15 | W54 | 9621 | 09 | 22.9 | 24 | SF | | 3 | E | | 23 | | FH |
| HOLL | | 2307 | 2316 | 2323 | S20 | W23 | 9628 | 09 | 25.2 | 16 | SF | | 3 | E | | 19 | | F |
| HOLL | | 2309 | 2310 | 2313 | S13 | E46 | 9637 | 09 | 30.4 | 4 | SF | | 3 | E | | 19 | | F |
| LEAR | 27 | 0259 | 0259 | 0304 | N04 | W57 | 9624 | 09 | 22.9 | 5 | SF | | 2 | E | | 15 | | |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Obs See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LEAR | 27 | 0351 | 0357 | 0404 | N12 | E34 | 9636 | 09 | 29.7 | 13 | SF | | 3 | E | | 17 | | F |
| GOES | | 0422 | 0432 | 0448 | S20 | W27 | 9628 | | | 26 | SF | C 3.8 | | | | | | 5.3E-03 |
| LEAR | | 0424 | 0424 | 0437 | S20 | W27 | 9628 | 09 | 25.1 | 13 | SF | | 3 | E | | 10 | | F |
| LEAR | | 0614 | 0619 | 0625 | S18 | W29 | 9628 | 09 | 25.0 | 11 | SF | | 3 | E | | 11 | | F |
| SVTO | | 0614 | 0620 | 0629 | S21 | W26 | 9628 | 09 | 25.3 | 15 | SF | | 3 | E | | 19 | | F |
| LEAR | | 0750 | 0801U | 0823D | S16 | W39 | 9628 | 09 | 24.4 | 33D | SF | | 1 | E | | 63 | | F |
| SVTO | | 0751 | 0808U | 0822D | S18 | W38 | 9628 | 09 | 24.4 | 31D | SF | | 2 | E | | 53 | | F |
| GOES | | 0855 | 1213 | 1406 | | | | | | 311 | | M 1.0 | | | | | | 1.4E-01T |
| RAMY | | 1118 | 1118 | 1124 | S19 | W31 | 9628 | 09 | 25.1 | 6 | SF | | 3 | E | | 24 | | |
| RAMY | | 1145 | 1215 | 1240 | S18 | W32 | 9628 | 09 | 25.0 | 55 | SF | | 3 | E | | 40 | | |
| SVTO | | 1210 | 1213 | 1217 | S22 | W30 | 9628 | 09 | 25.2 | 7 | SF | | 3 | E | | 15 | | |
| RAMY | | 1359 | 1401 | 1404 | S19 | W40 | 9628 | 09 | 24.5 | 5 | SF | | 3 | E | | 10 | | |
| HOLL | | 1420 | 1420 | 1427 | S12 | E37 | 9637 | 09 | 30.4 | 7 | SF | | 3 | E | | 16 | | |
| SVTO | | 1542 | 1542 | 1553 | N14 | E28 | 9636 | 09 | 29.8 | 11 | SF | | 3 | E | | 11 | | |
| RAMY | | 1603 | 1605 | 1621 | S16 | E37 | 9637 | 09 | 30.5 | 18 | SF | | 3 | E | | 31 | | FH |
| RAMY | | 1620 | 1620 | 1625 | S17 | W20 | 9632 | 09 | 26.2 | 5 | SF | | 3 | E | | 14 | | F |
| HOLL | | 1659 | 1701 | 1710 | N12 | E16 | 9634 | 09 | 28.9 | 11 | SF | | 3 | E | | 17 | | F |
| HOLL | | 1704 | 1705 | 1709 | S17 | W43 | 9628 | 09 | 24.4 | 5 | SF | | 3 | E | | 12 | | F |
| HOLL | | 1756 | 1757 | 1802 | S20 | W34 | 9628 | 09 | 25.1 | 6 | SF | | 3 | E | | 83 | | F |
| HOLL | | 1827 | 1829 | 1838 | N11 | E15 | 9634 | 09 | 28.9 | 11 | SF | | 3 | E | | 13 | | |
| HOLL | | 2046 | 2050 | 2105 | N13 | E33 | 9636 | 09 | 30.3 | 19 | SF | | 3 | E | | 51 | | F |
| HOLL | | 2052 | 2052 | 2110 | N12 | E14 | 9634 | 09 | 28.9 | 18 | SF | | 3 | E | | 17 | | F |
| HOLL | | 2204 | 2205 | 2209 | N22 | W37 | 9635 | 09 | 25.1 | 5 | SF | | 3 | E | | 53 | | |
| HOLL | | 2215 | 2217 | 2221 | S17 | W19 | 9632 | 09 | 26.5 | 6 | SF | | 3 | E | | 27 | | |
| LEAR | 28 | 0018 | 0018 | 0028 | S16 | W21 | 9632 | 09 | 26.4 | 10 | SF | | 3 | E | | 14 | | F |
| LEAR | | 0051 | 0054 | 0103 | N10 | E13 | 9634 | 09 | 29.0 | 12 | SF | | 3 | E | | 27 | | F |
| GOES | | 0201 | 0207 | 0215 | S17 | E32 | 9637 | | | 14 | 1F | C 7.5 | | | | | | 5.0E-03 |
| LEAR | | 0203 | 0203 | 0228 | S17 | E32 | 9637 | 09 | 30.5 | 25 | 1F | | 3 | E | | 122 | | ZF |
| GOES | | 0415 | 0425 | 0438 | | | 9628 | | | 23 | | C 3.5 | | | | | | 4.1E-03 |
| LEAR | | 0424E | 0425U | 0453D | S17 | W49 | 9628 | 09 | 24.4 | 29D | SF | | 3 | E | | 31 | | |
| LEAR | | 0424E | 0432U | 0453D | S12 | W25 | 9632 | 09 | 26.3 | 29D | SF | | 3 | E | | 69 | | |
| GOES | | 0635 | 0646 | 0652 | N19 | W42 | 9635 | | | 17 | SF | C 2.9 | | | | | | 2.7E-03 |
| SVTO | | 0637 | 0647 | 0657 | N19 | W42 | 9635 | 09 | 25.1 | 20 | SF | | 3 | E | | 41 | | |
| SVTO | | 0728 | 0728 | 0732 | S23 | W18 | 9632 | 09 | 26.9 | 4 | SF | | 3 | E | | 14 | | F |
| SVTO | | 0755 | 0757U | 0802 | S19 | W40 | 9628 | 09 | 25.3 | 7 | SF | | 3 | E | | 46 | | |
| GOES | | 0810 | 0830 | 0910 | N10 | E18 | 9636 | | | 60 | 2N | M 3.3 | | | | | | 9.2E-02 |
| LEAR | | 0812 | 0822 | 0934 | N10 | E18 | 9636 | 09 | 29.7 | 82 | 2N | | 3 | E | | 284 | | FH |
| SVTO | | 0813 | 0822U | 0953D | N11 | E18 | 9636 | 09 | 29.7 | 100D | 2N | | 2 | E | | 326 | | FH |
| SVTO | | 0847 | 0851 | 0904 | S17 | E28 | 9637 | 09 | 30.5 | 17 | SF | | 3 | E | | 49 | | F |
| LEAR | | 0847 | 0854 | 0917 | S14 | W32 | 9632 | 09 | 25.9 | 30 | SF | | 3 | E | | 45 | | |
| SVTO | | 0848 | 0852U | 0915 | S15 | W31 | 9632 | 09 | 26.0 | 27 | SF | | 3 | E | | 22 | | |
| LEAR | | 0849 | 0849 | 0903 | S19 | E28 | 9637 | 09 | 30.5 | 14 | SF | | 3 | E | | 37 | | F |
| SVTO | | 0931E | 0949U | 1142 | S18 | W36 | 9628 | 09 | 25.6 | 131D | 1N | | 2 | E | | 135 | | |
| GOES | | 0934 | 1014 | 1050 | S18 | W36 | 9628 | | | 76 | 1N | M 2.4 | | | | | | 9.1E-02 |
| SVTO | | 0940E | 0953U | 1044D | S17 | W24 | 9632 | 09 | 26.6 | 64D | SF | | 2 | E | | 46 | | |
| HOLL | | 1354 | 1357 | 1411 | S18 | E26 | 9637 | 09 | 30.5 | 17 | SF | | 3 | E | | 11 | | |
| HOLL | | 1357 | 1359 | 1408 | S17 | W47 | 9628 | 09 | 25.0 | 11 | SF | | 3 | E | | 12 | | |
| HOLL | | 1422 | 1426 | 1430 | S20 | W56 | 9628 | 09 | 24.3 | 8 | SF | | 3 | E | | 19 | | |
| HOLL | | 1454 | 1523 | 1629 | S20 | W57 | 9628 | 09 | 24.3 | 95 | SF | | 3 | E | | 78 | | F |
| SVTO | | 1458 | 1512 | 1526 | S18 | W52 | 9628 | 09 | 24.7 | 28 | SF | | 3 | E | | 37 | | F |
| RAMY | | 1553 | 1554 | 1601 | S18 | W47 | 9628 | 09 | 25.1 | 8 | SF | | 3 | E | | 14 | | |
| SVTO | | 1553 | 1554 | 1602D | S16 | W46 | 9628 | 09 | 25.2 | 9D | SF | | 2 | E | | 22 | | F |
| HOLL | | 1607 | 1611 | 1631 | S18 | W31 | 9632 | 09 | 26.3 | 24 | SF | | 3 | E | | 31 | | F |
| GOES | | 1658 | 1717 | 1722 | | | 9628 | | | 24 | | C 6.3 | | | | | | 6.8E-03 |
| HOLL | | 1700 | 1707 | 1721 | N14 | E14 | 9634 | 09 | 29.8 | 21 | SF | | 3 | E | | 28 | | F |
| HOLL | | 1712 | 1716 | 1726 | S17 | W47 | 9628 | 09 | 25.1 | 14 | SF | | 3 | E | | 39 | | F |
| HOLL | | 1750 | 1800 | 1812 | S17 | W48 | 9628 | 09 | 25.1 | 22 | SF | | 3 | E | | 14 | | F |
| GOES | | 1751 | 1825 | 1831 | | | 9628 | | | 40 | | C 7.2 | | | | | | 1.1E-02 |
| GOES | | 1751 | 1842 | 1851 | | | 9634 | | | 60 | | C 8.4 | | | | | | 8.9E-03 |
| HOLL | | 1813 | 1823 | 1837 | S15 | W50 | 9628 | 09 | 25.0 | 24 | SF | | 3 | E | | 13 | | |
| HOLL | | 1813 | 1824 | 1917 | N14 | E08 | 9634 | 09 | 29.4 | 64 | 1F | | 4 | E | | 116 | | F |
| GOES | | 1918 | 1926 | 2005 | S18 | E22 | 9637 | | | 47 | 1F | M 1.0 | | | | | | 2.7E-02 |
| HOLL | | 1919 | 1924 | 2027 | S18 | E22 | 9637 | 09 | 30.5 | 68 | 1F | | 3 | E | | 145 | | FH |
| HOLL | | 1920 | 1921 | 1926 | N11 | W10 | 9634 | 09 | 28.0 | 6 | SF | | 3 | E | | 14 | | |
| HOLL | | 1920 | 1925 | 1938 | S16 | W50 | 9628 | 09 | 25.0 | 18 | SF | | 3 | E | | 19 | | |
| HOLL | | 2001 | 2001 | 2007 | N12 | E21 | 9636 | 09 | 30.4 | 6 | SF | | 3 | E | | 13 | | F |
| HOLL | | 2109 | 2123 | 2215 | N13 | E11 | 9634 | 09 | 29.7 | 66 | 1F | | 3 | E | | 102 | | F |

# Hα SOLAR FLARES

## SEPTEMBER 2001

| Sta | Day | Start (UT) | Max (UT) | End (UT) | Lat | CMD | NOAA/ USAF Region | CMP Mo | CMP Day | Dur (Min) | Imp Opt | Imp Xray | Obs See | Obs Type | Area Measurement Time (UT) | Area Measurement Apparent (10-6 Disk) | Area Measurement Corr (Sq Deg) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HOLL | 28 | 2113 | 2118 | 2157 | S11 | E21 | 9637 | 09 | 30.5 | 44 | SF | | 3 | E | | 84 | | F |
| GOES | | 2115 | 2125 | 2134 | | | 9634 | | | 19 | | M 1.2 | | | | | | 1.2E-02 |
| HOLL | | 2306 | 2306 | 2321 | S16 | W50 | 9628 | 09 | 25.2 | 15 | SF | | 3 | E | | 22 | | F |
| GOES | | 2355 | 2410 | 2421 | S14 | W54 | 9628 | | | 26 | SF | C 8.6 | | | | | | 1.2E-02 |
| LEAR | | 2358 | 2415 | 2451 | S14 | W54 | 9628 | 09 | 24.9 | 53 | SF | | 3 | E | | 72 | | F |
| GOES | 29 | 0648 | 0656 | 0705 | S18 | W54 | 9628 | | | 17 | SF | C 5.4 | | | | | | 5.2E-03 |
| SVTO | | 0650 | 0651 | 0702 | S18 | W54 | 9628 | 09 | 25.2 | 12 | SF | | 3 | E | | 24 | | F |
| GOES | | 0721 | 0733 | 0742 | N12 | E05 | 9636 | | | 21 | SF | C 7.5 | | | | | | 8.0E-03 |
| SVTO | | 0725 | 0735 | 0757 | N12 | E05 | 9636 | 09 | 29.7 | 32 | SF | | 3 | E | | 84 | | F |
| LEAR | | 0734E | 0734U | 0736D | N14 | E06 | 9636 | 09 | 29.8 | 2D | 1F | | 2 | E | | 104 | | F |
| GOES | | 0809 | 0816 | 0822 | S16 | W54 | 9628 | | | 13 | SF | C 4.9 | | | | | | 3.6E-03 |
| SVTO | | 0811 | 0813 | 0822 | S16 | W54 | 9628 | 09 | 25.2 | 11 | SF | | 3 | E | | 20 | | |
| GOES | | 1019 | 1106 | 1148 | N13 | E03 | 9636 | | | 89 | 1F | M 1.8 | | | | | | 6.2E-02 |
| SVTO | | 1034 | 1055 | 1228 | N13 | E03 | 9636 | 09 | 29.7 | 114 | 1F | | 3 | E | | 195 | | F |
| SVTO | | 1037 | 1038 | 1044 | N14 | W05 | 9634 | 09 | 29.1 | 7 | SF | | 3 | E | | 14 | | |
| SVTO | | 1044 | 1116 | 1137 | N14 | W05 | 9634 | 09 | 29.1 | 53 | SF | | 3 | E | | 39 | | |
| RAMY | | 1100 | 1111 | 1306 | N12 | E03 | 9636 | 09 | 29.7 | 126 | 1F | | 3 | E | | 152 | | F |
| HOLL | | 1356 | 1415 | 1500 | N12 | E02 | 9634 | 09 | 29.7 | 64 | SF | | 3 | E | | 62 | | F |
| SVTO | | 1446 | 1446 | 1501 | N13 | E09 | 9636 | 09 | 30.3 | 15 | SF | | 3 | E | | 17 | | F |
| HOLL | | 1546 | 1550 | 1554 | N12 | E01 | 9634 | 09 | 29.7 | 8 | SF | | 3 | E | | 13 | | |
| HOLL | | 1558 | 1628 | 1657 | N12 | E00 | 9634 | 09 | 29.7 | 59 | SF | | 3 | E | | 39 | | F |
| HOLL | | 1610 | 1610 | 1615 | S17 | W68 | 9628 | 09 | 24.5 | 5 | SF | | 3 | E | | 13 | | |
| RAMY | | 1615 | 1627 | 1641 | N12 | E01 | 9636 | 09 | 29.7 | 26 | SF | | 3 | E | | 20 | | |
| HOLL | | 1806 | 1812 | 1832 | N10 | W01 | 9634 | 09 | 29.7 | 26 | SF | | 3 | E | | 22 | | F |
| HOLL | | 1828 | 1828 | 1835 | N21 | W60 | 9635 | 09 | 25.2 | 7 | SF | | 3 | E | | 15 | | |
| LEAR | 30 | 0008 | 0013 | 0021 | N13 | W08 | 9636 | 09 | 29.4 | 13 | SF | | 3 | E | | 21 | | F |
| LEAR | | 0029 | 0036 | 0057 | N12 | W05 | 9636 | 09 | 29.6 | 28 | SF | | 3 | E | | 20 | | F |
| LEAR | | 0253 | 0255 | 0300 | S18 | W51 | 9632 | 09 | 26.2 | 7 | SF | | 3 | E | | 13 | | |
| LEAR | | 0258 | 0259 | 0311 | N13 | W09 | 9636 | 09 | 29.4 | 13 | SF | | 3 | E | | 15 | | |
| GOES | | 0338 | 0401 | 0418 | | | | | | 40 | | C 8.3 | | | | | | 1.4E-02 |
| LEAR | | 0439 | 0440 | 0442 | S17 | W75 | 9628 | 09 | 24.5 | 3 | SF | | 3 | E | | 16 | | |
| LEAR | | 0503 | 0504 | 0516 | N12 | W09 | 9636 | 09 | 29.5 | 13 | SF | | 2 | E | | 50 | | F |
| GOES | | 0529 | 0606 | 0620 | | | 9636 | | | 51 | | C 8.4 | | | | | | 2.3E-02 |
| LEAR | | 0533 | 0533 | 0539 | N12 | W08 | 9636 | 09 | 29.6 | 6 | SF | | 2 | E | | 16 | | F |
| LEAR | | 0540 | 0545 | 0623 | N13 | E01 | 9636 | 09 | 30.3 | 43 | SF | | 2 | E | | 41 | | FH |
| GOES | | 0649 | 0653 | 0704 | N13 | W11 | 9636 | | | 15 | SF | C 5.8 | | | | | | 4.8E-03 |
| LEAR | | 0651 | 0651 | 0701 | N13 | W11 | 9636 | 09 | 29.4 | 10 | SF | | 2 | E | | 27 | | F |
| SVTO | | 0652 | 0655 | 0702 | N13 | W11 | 9636 | 09 | 29.4 | 10 | SF | | 3 | E | | 14 | | |
| GOES | | 0810 | 0839 | 0845 | N11 | W09 | 9636 | | | 35 | SF | C 6.1 | | | | | | 8.2E-03 |
| LEAR | | 0831 | 0837 | 0854 | N11 | W09 | 9636 | 09 | 29.7 | 23 | SF | | 1 | E | | 21 | | F |
| LEAR | | 0903 | 0903 | 0907 | N12 | W11 | 9636 | 09 | 29.5 | 4 | SF | | 1 | E | | 15 | | F |
| GOES | | 0940 | 0942 | 0945 | S14 | E03 | 9637 | | | 5 | SF | C 3.3 | | | | | | 9.6E-04 |
| SVTO | | 0941E | 0942U | 0954D | S14 | E03 | 9637 | 09 | 30.6 | 13D | SF | | 2 | E | | 50 | | F |
| GOES | | 1131 | 1141 | 1219 | S20 | W75 | 9628 | | | 48 | SF | M 1.0 | | | | | | 2.3E-02 |
| RAMY | | 1134 | 1135 | 1156 | S20 | W75 | 9628 | 09 | 24.7 | 22 | SF | | 3 | E | | 54 | | F |
| GOES | | 1727 | 1733 | 1736 | | | 9628 | | | 9 | | C 6.6 | | | | | | 2.7E-03 |
| RAMY | | 1728 | 1734 | 1807 | N11 | W17 | 9636 | 09 | 29.4 | 39 | SF | | 3 | E | | 44 | | F |
| RAMY | | 1733 | 1735 | 1739 | S18 | W61 | 9628 | 09 | 26.1 | 6 | SF | | 3 | E | | 12 | | F |
| GOES | | 1744 | 1752 | 1757 | | | | | | 13 | | C 5.1 | | | | | | 3.3E-03 |
| RAMY | | 1822 | 1823 | 1837 | N11 | W16 | 9636 | 09 | 29.6 | 15 | SF | | 3 | E | | 22 | | F |
| RAMY | | 1828 | 1829 | 1842 | S18 | W79 | 9628 | 09 | 24.7 | 14 | SF | | 3 | E | | 57 | | |
| RAMY | | 1829 | 1829 | 1837 | S19 | W60 | 9632 | 09 | 26.2 | 8 | SF | | 3 | E | | 13 | | F |
| GOES | | 1841 | 1845 | 1851 | N11 | W16 | 9636 | | | 10 | SF | C 4.4 | | | | | | 2.4E-03 |
| RAMY | | 1842 | 1843 | 1901 | N11 | W16 | 9636 | 09 | 29.6 | 19 | SF | | 3 | E | | 33 | | F |
| HOLL | | 1928E | 1928U | 1931D | S24 | W68 | 9628 | 09 | 25.5 | 3D | SF | | 3 | E | | 38 | | |
| RAMY | | 1928 | 1928 | 1934 | S24 | W71 | 9628 | 09 | 25.3 | 6 | SF | | 3 | E | | 50 | | |
| GOES | | 1946 | 2014 | 2029 | | | | | | 43 | | C 5.1 | | | | | | 1.0E-02 |
| RAMY | | 2046 | 2047 | 2057 | S17 | W56 | 9632 | 09 | 26.6 | 11 | SF | | 3 | E | | 15 | | |
| GOES | | 2129 | 2136 | 2145 | | | | | | 16 | | M 1.2 | | | | | | 7.9E-03 |

# SOLAR RADIO EMISSION
## Selected Fixed Frequency Events

### SEPTEMBER 2001

| Day | Freq | Sta | Type | | Start (UT) | Time of Maximum (UT) | Duration (Min) | Flux Density Peak (10 -22 W/m 2 Hz) | Flux Density Mean (10 -22 W/m 2 Hz) | Int | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 8800 | PALE | 8 | S | 2040.0 | 2041.0 | 2.0 | 100.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 2041.0 | 2041.0 | 1.0 | 100.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 2314.0 | 2316.0 | 7.0 | 200.0 | | | QL=2 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 2314.0 | 2315.0 | 1.0 | 75.0 | | | QL=2 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 2314.0 | 2315.0 | 2.0 | 130.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 2314.0 | 2315.0 | 2.0 | 150.0 | | | QL=4 ST=2 TYP=3 |
| 02 | 2695 | LEAR | 8 | S | 0312.0 | 0312.0 | 1.0 | 43.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0543.0 | 0543.0 | 1.0 | 240.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 4 | S/F | 0543.0 | 0543.0 | 3.0 | 260.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0601.0 | 0601.0 | 1.0 | 33.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0604.0 | 0604.0 | U | 23.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0915.0 | 0916.0 | 3.0 | 99.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0915.0 | 0916.0 | 2.0 | 73.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0915.0 | 0916.0 | 1.0 | 30.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1344.0 | 1345.0 | 6.0 | 750.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 48 | C | 1345.0 | 1346.0 | 7.0 | 140.0 | | | QL=4 ST=2 TYP=8 |
| 03 | 2695 | LEAR | 8 | S | 0151.0 | 0151.0 | 1.0 | 40.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 4 | S/F | 0151.0 | 0151.0 | 3.0 | 39.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0326.0 | 0326.0 | U | 39.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0941.0 | 0942.0 | 1.0 | 29.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0942.0 | 0942.0 | U | 29.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0944.0 | 0944.0 | 1.0 | 23.0 | | | QL=2 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 1042.0 | 1043.0 | 1.0 | 27.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 1822.0 | 1823.0 | 2.0 | 370.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 48 | C | 1822.0 | 1830.0 | 13.0 | 300.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | SGMR | 48 | C | 1822.0 | 1830.0 | 14.0 | 170.0 | | | QL=4 ST=3 TYP=8 |
| | 8800 | SGMR | 48 | C | 1822.0 | 1823.0 | 15.0 | 620.0 | | | QL=4 ST=3 TYP=8 |
| 04 | 2695 | PALE | 8 | S | 2155.0 | 2156.0 | 2.0 | 320.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 2155.0 | 2156.0 | 2.0 | 150.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 2155.0 | 2155.0 | 1.0 | 63.0 | | | QL=2 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 2155.0 | 2156.0 | 1.0 | 180.0 | | | QL=2 ST=2 TYP=3 |
| 05 | 2695 | SGMR | 49 | GB | 1427.0 | 1428.0 | 10.0 | 800.0 | | | QL=4 ST=2 TYP=6 |
| | 8800 | SGMR | 49 | GB | 1427.0 | 1428.0 | 10.0 | 760.0 | | | QL=4 ST=2 TYP=6 |
| | 8800 | SVTO | 49 | GB | 1427.0 | 1428.0 | 13.0 | 760.0 | | | QL=4 ST=2 TYP=6 |
| | 2695 | SVTO | 49 | GB | 1427.0 | 1428.0 | 11.0 | 770.0 | | | QL=4 ST=2 TYP=6 |
| | 2695 | PALE | 8 | S | 1905.0 | 1906.0 | 2.0 | 70.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 1905.0 | 1906.0 | 2.0 | 240.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 1905.0 | 1906.0 | 2.0 | 240.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 1906.0 | 1906.0 | 1.0 | 68.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 4 | S/F | 2223.0 | 2226.0 | 7.0 | 73.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 2228.0 | 2228.0 | U | 24.0 | | | QL=4 ST=2 TYP=3 |
| 06 | 8800 | LEAR | 8 | S | 0344.0 | 0344.0 | 1.0 | 53.0 | | | QL=2 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0344.0 | 0344.0 | 1.0 | 130.0 | | | QL=2 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 0344.0 | 0344.0 | 1.0 | 110.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0728.0 | 0728.0 | 1.0 | 68.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0728.0 | 0728.0 | U | 50.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1320.0 | 1320.0 | 3.0 | 70.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 1320.0 | 1320.0 | 1.0 | 53.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 1320.0 | 1320.0 | 1.0 | 46.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 1320.0 | 1320.0 | 1.0 | 57.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 2055.0 | 2055.0 | U | 34.0 | | | QL=4 ST=2 TYP=3 |
| 07 | 2695 | LEAR | 8 | S | 0106.0 | 0107.0 | 1.0 | 34.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0106.0 | 0106.0 | U | 37.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0133.0 | 0133.0 | 3.0 | 93.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0620.0 | 0620.0 | 1.0 | 73.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0620.0 | 0620.0 | 2.0 | 92.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1527.0 | 1529.0 | 8.0 | 160.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1528.0 | 1529.0 | 6.0 | 180.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 4 | S/F | 1528.0 | 1529.0 | 3.0 | 130.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 1529.0 | 1529.0 | 1.0 | 100.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1540.0 | 1542.0 | 3.0 | 41.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 1541.0 | 1541.0 | 1.0 | 34.0 | | | QL=4 ST=2 TYP=3 |

# SOLAR RADIO EMISSION
## Selected Fixed Frequency Events

### SEPTEMBER 2001

| Day | Freq | Sta | Type | | Start (UT) | Time of Maximum (UT) | Duration (Min) | Flux Density Peak (10 -22 W/m 2 Hz) | Flux Density Mean (10 -22 W/m 2 Hz) | Int | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 08 | 8800 | LEAR | 4 | S/F | 0439.0 | 0441.0 | 7.0 | 58.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0452.0 | 0453.0 | 3.0 | 37.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0707.0 | 0707.0 | U | 30.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0707.0 | 0707.0 | U | 40.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0707.0 | 0707.0 | U | 32.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1643.0 | 1644.0 | 3.0 | 480.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1643.0 | 1644.0 | 3.0 | 130.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 1643.0 | 1644.0 | 2.0 | 450.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 48 | C | 1643.0 | 1644.0 | 5.0 | 120.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | PALE | 4 | S/F | 1644.0 | 1644.0 | 4.0 | 100.0 | | | QL=2 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 1644.0 | 1644.0 | 1.0 | 280.0 | | | QL=2 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 2348.0 | 2349.0 | 4.0 | 260.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 2349.0 | 2349.0 | 1.0 | 39.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 2349.0 | 2349.0 | 1.0 | 39.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 2349.0 | 2349.0 | 2.0 | 240.0 | | | QL=4 ST=2 TYP=3 |
| 09 | 8800 | LEAR | 8 | S | 0219.0 | 0221.0 | 2.0 | 25.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 20 | GRF | 0223.0 | 0230.0 | 8.0 | 44.0 | | | QL=4 ST=2 TYP=2 |
| | 8800 | LEAR | 8 | S | 0233.0 | 0234.0 | 2.0 | 29.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0236.0 | 0238.0 | 4.0 | 51.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 4 | S/F | 0236.0 | 0239.0 | 4.0 | 65.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 0238.0 | 0238.0 | 2.0 | 140.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0652.0 | 0652.0 | 1.0 | 25.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0801.0 | 0802.0 | 3.0 | 80.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0801.0 | 0803.0 | 6.0 | 450.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 4 | S/F | 0801.0 | 0802.0 | 3.0 | 74.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 4 | S/F | 0801.0 | 0803.0 | 6.0 | 440.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0959.0 | 1000.0 | 2.0 | 47.0 | | | QL=4 ST=3 TYP=3 |
| | 2695 | SGMR | 48 | C | 1511.0 | 1512.0 | 8.0 | 340.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | SVTO | 4 | S/F | 1511.0 | 1512.0 | 7.0 | 300.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 49 | GB | 1512.0 | 1516.0 | 8.0 | 820.0 | | | QL=4 ST=2 TYP=6 |
| | 8800 | SVTO | 48 | C | 1512.0 | 1516.0 | 9.0 | 860.0 | | | QL=4 ST=2 TYP=8 |
| | 8800 | SGMR | 48 | C | 1522.0 | 1525.0 | 7.0 | 120.0 | | | QL=4 ST=2 TYP=8 |
| | 8800 | SGMR | 8 | S | 1656.0 | 1657.0 | 1.0 | 100.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 1839.0 | 1840.0 | 2.0 | 100.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 1840.0 | 1840.0 | U | 36.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 2043.0 | 2044.0 | 2.0 | 490.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 49 | GB | 2043.0 | 2044.0 | 3.0 | 510.0 | | | QL=4 ST=2 TYP=6 |
| | 8800 | SGMR | 49 | GB | 2043.0 | 2044.0 | 3.0 | 1000.0 | | | QL=4 ST=2 TYP=6 |
| | 2695 | SGMR | 4 | S/F | 2043.0 | 2043.0 | 3.0 | 460.0 | | | QL=4 ST=2 TYP=3 |
| 10 | 8800 | LEAR | 8 | S | 0313.0 | 0313.0 | 1.0 | 27.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0513.0 | 0513.0 | 4.0 | 120.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0513.0 | 0515.0 | 3.0 | 150.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 4 | S/F | 0513.0 | 0515.0 | 3.0 | 170.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 4 | S/F | 0513.0 | 0513.0 | 3.0 | 110.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0541.0 | 0541.0 | 1.0 | 26.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0541.0 | 0542.0 | 2.0 | 61.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0541.0 | 0542.0 | 2.0 | 46.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0541.0 | 0541.0 | 1.0 | 46.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0820.0 | 0821.0 | 5.0 | 54.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 2346.0 | 2347.0 | 2.0 | 57.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 2347.0 | 2347.0 | 1.0 | 41.0 | | | QL=4 ST=2 TYP=3 |
| 11 | 8800 | LEAR | 4 | S/F | 0030.0 | 0031.0 | 5.0 | 190.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 4 | S/F | 0031.0 | 0031.0 | 5.0 | 200.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 0052.0 | 0053.0 | 1.0 | 32.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 48 | C | 0052.0 | 0104.0 | 28.0 | 86.0 | | | QL=4 ST=2 TYP=8 |
| | 8800 | LEAR | 48 | C | 0052.0 | 0100.0 | 28.0 | 110.0 | | | QL=4 ST=2 TYP=8 |
| | 8800 | PALE | 20 | GRF | 0052.0 | 0100.0 | 34.0 | 120.0 | | | QL=4 ST=2 TYP=2 |
| | 2695 | SGMR | 8 | S | 2034.0 | 2034.0 | U | 26.0 | | | QL=4 ST=2 TYP=3 |
| 12 | 8800 | LEAR | 8 | S | 0442.0 | 0443.0 | 2.0 | 59.0 | | | QL=4 ST=2 TYP=3 |
| 13 | 2695 | LEAR | 8 | S | 0709.0 | 0709.0 | 1.0 | 23.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0709.0 | 0709.0 | 1.0 | 48.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0710.0 | 0710.0 | U | 21.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 1600.0 | 1600.0 | 1.0 | 82.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 1600.0 | 1600.0 | 1.0 | 56.0 | | | QL=4 ST=2 TYP=3 |

# SOLAR RADIO EMISSION
## Selected Fixed Frequency Events

### SEPTEMBER 2001

| Day | Freq | Sta | Type | | Start (UT) | Time of Maximum (UT) | Duration (Min) | Flux Density Peak (10 -22 W/m 2 Hz) | Flux Density Mean (10 -22 W/m 2 Hz) | Int | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 2695 | SVTO | 8 | S | 1600.0 | 1600.0 | 1.0 | 46.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 4 | S/F | 1600.0 | 1600.0 | 3.0 | 57.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 1950.0 | 1951.0 | 1.0 | 53.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 1950.0 | 1950.0 | 1.0 | 110.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 1950.0 | 1950.0 | 1.0 | 71.0 | | | QL=4 ST=2 TYP=3 |
| 14 | 2695 | LEAR | 4 | S/F | 0552.0 | 0554.0 | 4.0 | 69.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0552.0 | 0552.0 | 2.0 | 33.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 4 | S/F | 0552.0 | 0552.0 | 7.0 | 49.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 4 | S/F | 0552.0 | 0554.0 | 4.0 | 71.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 1841.0 | 1842.0 | 2.0 | 250.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 1842.0 | 1842.0 | 2.0 | 87.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 1842.0 | 1842.0 | U | 49.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 49 | GB | 2144.0 | 2145.0 | 5.0 | 920.0 | | | QL=4 ST=3 TYP=6 |
| | 8800 | SGMR | 48 | C | 2144.0 | 2145.0 | 5.0 | 520.0 | | | QL=4 ST=3 TYP=8 |
| 15 | 8800 | LEAR | 8 | S | 0052.0 | 0053.0 | 2.0 | 55.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1106.0 | 1108.0 | 13.0 | 230.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1107.0 | 1109.0 | 4.0 | 130.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1119.0 | 1121.0 | 13.0 | 99.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1120.0 | 1122.0 | 9.0 | 61.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1132.0 | 1134.0 | 7.0 | 60.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1132.0 | 1134.0 | 7.0 | 99.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 48 | C | 1546.0 | 1549.0 | 10.0 | 130.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | SGMR | 4 | S/F | 1547.0 | 1549.0 | 5.0 | 140.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1548.0 | 1549.0 | 5.0 | 51.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 1559.0 | 1559.0 | U | 23.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 1631.0 | 1631.0 | 1.0 | 39.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 1631.0 | 1631.0 | 1.0 | 24.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 2028.0 | 2030.0 | 2.0 | 60.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 2029.0 | 2030.0 | 1.0 | 60.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 2029.0 | 2030.0 | 1.0 | 36.0 | | | QL=4 ST=2 TYP=3 |
| 16 | 8800 | LEAR | 20 | GRF | 0347.0 | 0353.0 | 56.0 | 100.0 | | | QL=4 ST=2 TYP=2 |
| | 2695 | LEAR | 8 | S | 0349.0 | 0349.0 | 1.0 | 41.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0617.0 | 0617.0 | 2.0 | 62.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 4 | S/F | 0741.0 | 0743.0 | 4.0 | 130.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0742.0 | 0743.0 | 3.0 | 140.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0742.0 | 0743.0 | 2.0 | 160.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0742.0 | 0743.0 | 2.0 | 190.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1345.0 | 1350.0 | 7.0 | 120.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 4 | S/F | 1345.0 | 1350.0 | 7.0 | 110.0 | | | QL=4 ST=3 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1346.0 | 1350.0 | 7.0 | 75.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 1357.0 | 1358.0 | 2.0 | 29.0 | | | QL=4 ST=3 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1839.0 | 1841.0 | 5.0 | 120.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 4 | S/F | 1840.0 | 1840.0 | 3.0 | 120.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1840.0 | 1842.0 | 5.0 | 77.0 | | | QL=4 ST=2 TYP=3 |
| 17 | 2695 | SVTO | 8 | S | 0613.0 | 0613.0 | U | 27.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0613.0 | 0613.0 | U | 53.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0648.0 | 0648.0 | 1.0 | 49.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0648.0 | 0648.0 | 1.0 | 55.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0648.0 | 0648.0 | 1.0 | 29.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0819.0 | 0821.0 | 8.0 | 460.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 4 | S/F | 0819.0 | 0821.0 | 7.0 | 420.0 | | | QL=4 ST=3 TYP=3 |
| | 8800 | LEAR | 49 | GB | 0820.0 | 0821.0 | 19.0 | 510.0 | | | QL=4 ST=2 TYP=6 |
| | 8800 | SVTO | 49 | GB | 0820.0 | 0821.0 | 15.0 | 570.0 | | | QL=4 ST=3 TYP=6 |
| | 2695 | SGMR | 4 | S/F | 1548.0 | 1549.0 | 4.0 | 380.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1548.0 | 1548.0 | 4.0 | 790.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 49 | GB | 1548.0 | 1548.0 | 7.0 | 950.0 | | | QL=4 ST=2 TYP=6 |
| | 2695 | SVTO | 4 | S/F | 1548.0 | 1549.0 | 8.0 | 390.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 2104.0 | 2105.0 | 1.0 | 110.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 2104.0 | 2105.0 | 2.0 | 160.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 2104.0 | 2105.0 | 1.0 | 120.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 2104.0 | 2105.0 | 1.0 | 150.0 | | | QL=4 ST=2 TYP=3 |
| 18 | 2695 | LEAR | 8 | S | 0006.0 | 0006.0 | 2.0 | 230.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0006.0 | 0006.0 | 2.0 | 140.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 0006.0 | 0006.0 | 2.0 | 230.0 | | | QL=4 ST=2 TYP=3 |

# SOLAR RADIO EMISSION
## Selected Fixed Frequency Events

### SEPTEMBER 2001

| Day | Freq | Sta | Type | | Start (UT) | Time of Maximum (UT) | Duration (Min) | Flux Density Peak (10 -22 W/m 2 Hz) | Flux Density Mean (10 -22 W/m 2 Hz) | Int | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | 8800 | PALE | 8 | S | 0006.0 | 0006.0 | 1.0 | 140.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0428.0 | 0428.0 | 3.0 | 33.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0428.0 | 0428.0 | 1.0 | 35.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0438.0 | 0439.0 | 3.0 | 62.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0438.0 | 0439.0 | 3.0 | 85.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1533.0 | 1538.0 | 7.0 | 99.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 4 | S/F | 1533.0 | 1538.0 | 7.0 | 70.0 | | | QL=4 ST=3 TYP=3 |
| | 8800 | SVTO | 4 | S/F | 1533.0 | 1537.0 | 6.0 | 51.0 | | | QL=4 ST=3 TYP=3 |
| | 2695 | SVTO | 8 | S | 1534.0 | 1534.0 | 1.0 | 35.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 1537.0 | 1537.0 | 2.0 | 65.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 1537.0 | 1537.0 | 1.0 | 36.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 1550.0 | 1550.0 | U | 32.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 8 | S | 1705.0 | 1705.0 | 1.0 | 95.0 | | | QL=4 ST=2 TYP=3 |
| 20 | 8800 | LEAR | 8 | S | 0506.0 | 0506.0 | U | 58.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0506.0 | 0506.0 | U | 42.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0506.0 | 0506.0 | 1.0 | 53.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0506.0 | 0506.0 | U | 34.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 8 | S | 1815.0 | 1815.0 | 1.0 | 97.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SGMR | 4 | S/F | 1815.0 | 1815.0 | 4.0 | 98.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 4 | S/F | 1815.0 | 1815.0 | 10.0 | 210.0 | | | QL=4 ST=2 TYP=3 |
| 21 | 2695 | LEAR | 8 | S | 0644.0 | 0645.0 | 1.0 | 25.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0658.0 | 0659.0 | 1.0 | 49.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0658.0 | 0659.0 | 3.0 | 38.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0658.0 | 0659.0 | 1.0 | 23.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0658.0 | 0659.0 | 2.0 | 52.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0959.0 | 0959.0 | 1.0 | 33.0 | | | QL=4 ST=2 TYP=3 |
| 22 | 8800 | SVTO | 48 | C | 0640.0 | 0643.0 | 4.0 | 73.0 | | | QL=4 ST=2 TYP=8 |
| | 8800 | LEAR | 48 | C | 0640.0 | 0641.0 | 11.0 | 92.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | LEAR | 8 | S | 0643.0 | 0643.0 | U | 32.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0643.0 | 0643.0 | U | 31.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 4 | S/F | 1648.0 | 1651.0 | 6.0 | 67.0 | | | QL=4 ST=2 TYP=3 |
| 23 | 2695 | LEAR | 8 | S | 0103.0 | 0104.0 | 1.0 | 51.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SGMR | 4 | S/F | 1134.0 | 1135.0 | 4.0 | 79.0 | | | QL=4 ST=2 TYP=3 |
| 24 | 8800 | SVTO | 8 | S | 0547.0 | 0547.0 | U | 38.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0854.0 | 0855.0 | 4.0 | 140.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 4 | S/F | 0854.0 | 0855.0 | 4.0 | 130.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 49 | GB | 0933.0 | 1030.0 | 230.0 | 23000.0 | | | QL=4 ST=3 TYP=6 |
| | 2695 | LEAR | 4 | S/F | 0935.0E | 0945.0 | 10.0D | 29.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 49 | GB | 0943.0 | 1034.0 | 128.0 | 7500.0 | | | QL=4 ST=3 TYP=6 |
| | 2695 | SGMR | 48 | C | 1055.0 | 1056.0 | 32.0 | 1800.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | SGMR | 4 | S/F | 1134.0 | 1134.0 | 23.0 | 120.0 | | | QL=4 ST=3 TYP=3 |
| | 8800 | SGMR | 48 | C | 1134.0 | 1136.0 | 29.0 | 110.0 | | | QL=4 ST=3 TYP=8 |
| | 8800 | SGMR | 4 | S/F | 1303.0 | 1308.0 | 8.0 | 73.0 | | | QL=4 ST=2 TYP=3 |
| 25 | 8800 | LEAR | 4 | S/F | 0149.0 | 0151.0 | 5.0 | 73.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0150.0 | 0151.0 | 2.0 | 53.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 0150.0 | 0151.0 | 2.0 | 110.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 48 | C | 0425.0 | 0434.0 | 57.0 | 770.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | LEAR | 4 | S/F | 0433.0 | 0434.0 | 11.0 | 190.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 4 | S/F | 1019.0 | 1022.0 | 821.0 | 97.0 | | | QL=4 ST=1 TYP=3 |
| | 8800 | SVTO | 48 | C | 1020.0 | 1022.0 | 12.0 | 97.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | SVTO | 4 | S/F | 1020.0 | 1022.0 | 820.0 | 48.0 | | | QL=4 ST=1 TYP=3 |
| | 2695 | SVTO | 46 | C | 1027.0 | 1029.0 | 2.0 | 38.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | PALE | 8 | S | 1712.0 | 1713.0 | 2.0 | 260.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 1713.0 | 1713.0 | 1.0 | 71.0 | | | QL=4 ST=2 TYP=3 |
| 26 | 8800 | PALE | 20 | GRF | 0105.0 | 0114.0 | 12.0 | 69.0 | | | QL=4 ST=3 TYP=2 |
| | 8800 | LEAR | 4 | S/F | 0253.0 | 0256.0 | 6.0 | 120.0 | | | QL=4 ST=3 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0253.0 | 0256.0 | 4.0 | 74.0 | | | QL=4 ST=3 TYP=3 |
| | 2695 | LEAR | 8 | S | 0254.0 | 0255.0 | 2.0 | 74.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 4 | S/F | 0254.0 | 0256.0 | 3.0 | 130.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 8 | S | 0254.0 | 0255.0 | 2.0 | 81.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 0255.0 | 0256.0 | 1.0 | 100.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0300.0 | 0302.0 | 6.0 | 40.0 | | | QL=4 ST=2 TYP=3 |

# S O L A R  R A D I O  E M I S S I O N
## Selected Fixed Frequency Events

### SEPTEMBER 2001

| Day | Freq | Sta | Type | | Start (UT) | Time of Maximum (UT) | Duration (Min) | Flux Density Peak (10 -22 W/m 2 Hz) | Flux Density Mean (10 -22 W/m 2 Hz) | Int | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 26 | 8800 | LEAR | 4 | S/F | 0301.0 | 0302.0 | 3.0 | 22.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 4 | S/F | 0301.0 | 0302.0 | 5.0 | 48.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | PALE | 4 | S/F | 0301.0 | 0302.0 | 4.0 | 74.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0718.0 | 0718.0 | U | 27.0 | | | QL=4 ST=2 TYP=3 |
| 27 | 2695 | LEAR | 8 | S | 0423.0 | 0424.0 | 2.0 | 42.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0424.0 | 0424.0 | U | 34.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 0802.0 | 0802.0 | 1.0 | 50.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 0802.0 | 0802.0 | 1.0 | 40.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 8 | S | 0803.0 | 0803.0 | U | 27.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | SVTO | 8 | S | 0803.0 | 0803.0 | 1.0 | 51.0 | | | QL=4 ST=2 TYP=3 |
| 28 | 8800 | LEAR | 4 | S/F | 0201.0 | 0203.0 | 4.0 | 120.0 | | | QL=4 ST=2 TYP=3 |
| | 8800 | PALE | 8 | S | 0203.0 | 0203.0 | U | 83.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 4 | S/F | 0811.0 | 0819.0 | 67.0 | 180.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | SVTO | 20 | GRF | 0812.0 | 0819.0 | 141.0 | 150.0 | | | QL=4 ST=2 TYP=2 |
| | 8800 | LEAR | 20 | GRF | 0813.0 | 0835.0 | 62.0 | 89.0 | | | QL=4 ST=2 TYP=2 |
| | 8800 | SVTO | 20 | GRF | 0813.0 | 0951.0 | 140.0 | 140.0 | | | QL=4 ST=2 TYP=2 |
| | 8800 | LEAR | 48 | C | 0937.0E | 0951.0 | 27.0D | 120.0 | | | QL=2 ST=2 TYP=8 |
| | 2695 | LEAR | 48 | C | 0941.0E | 1002.0 | 23.0D | 240.0 | | | QL=4 ST=2 TYP=8 |
| | 2695 | PALE | 8 | S | 2110.0 | 2110.0 | 1.0 | 50.0 | | | QL=4 ST=2 TYP=3 |
| | 2695 | LEAR | 8 | S | 2229.0 | 2229.0 | 1.0 | 28.0 | | | QL=2 ST=2 TYP=3 |
| | 8800 | LEAR | 8 | S | 2229.0 | 2229.0 | 1.0 | 24.0 | | | QL=2 ST=2 TYP=3 |
| 30 | 2695 | PALE | 8 | S | 1648.0 | 1649.0 | 2.0 | 65.0 | | | QL=4 ST=2 TYP=3 |

Reports are received routinely from the following observatories:
LEAR = Learmonth  PALE = Palehua  SGMR = Sagamore Hill  SVTO = San Vito

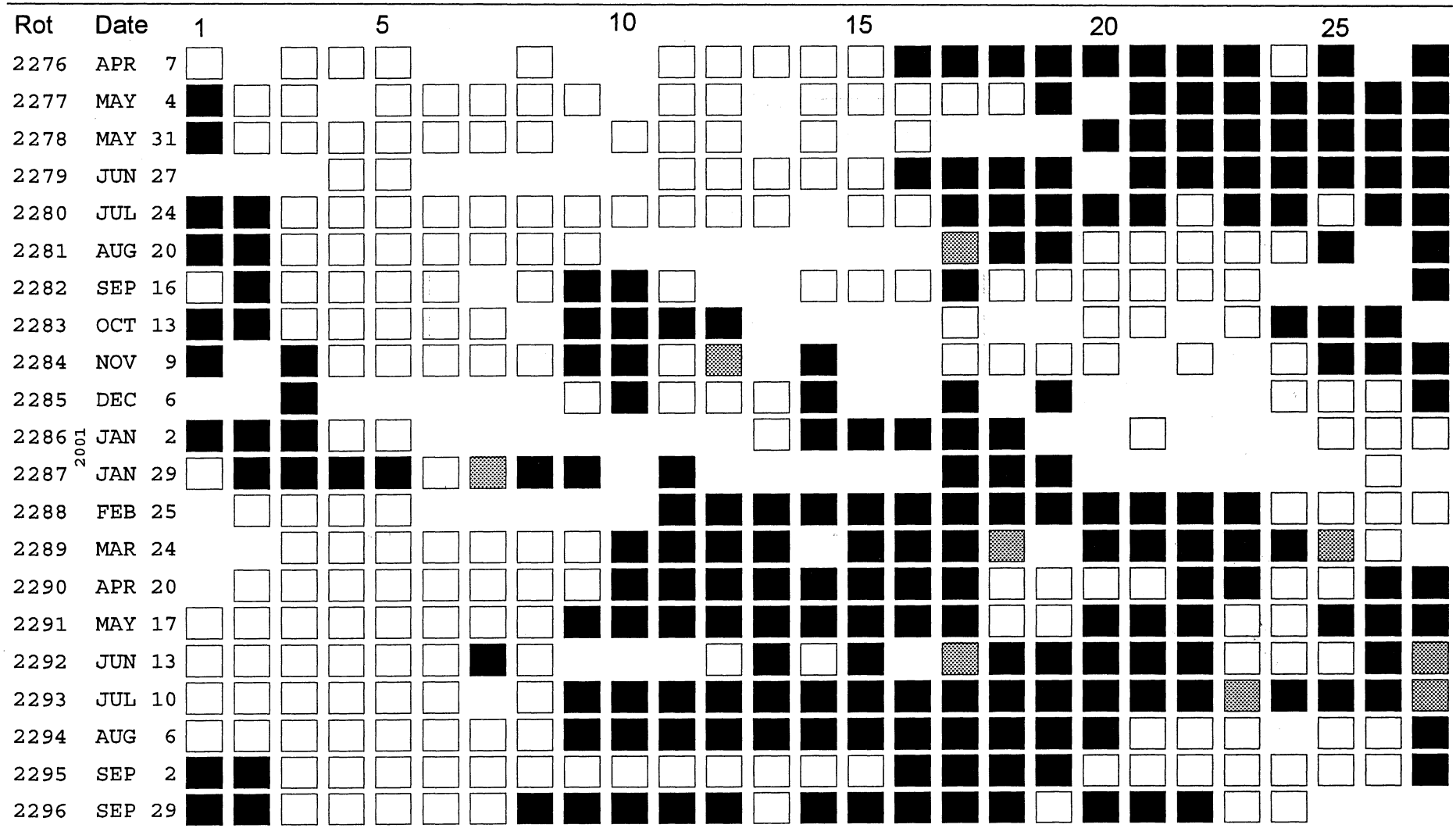
Explanation of Type Code:

| | | | | |
|---|---|---|---|---|
| 1 Simple 1 | 7 Minor + | 24 Rise | 30 Post Burst Increase A | 43 Onset of Noise Storm |
| 2 Simple 1F | 8 Spike | 25 Rise A | 31 Post Burst Decrease | 44 Noise Storm in Progress |
| 3 Simple 2 | 20 Simple 3 | 26 Fall | 33 Absorption | 45 Complex |
| 4 Simple 2F | 21 Simple 3A | 27 Rise and Fall | 40 Fluctuation | 46 Complex F |
| 5 Simple | 22 Simple 3F | 28 Precusor | 41 Group of Bursts | 47 Great Burst |
| 6 Minor | 23 Simple 3AF | 29 Post Burst Increase | 42 Series of Bursts | 48 Major |

| | | | |
|---|---|---|---|
| 1A Simple 1A | 4A Simple 2AF | 24PF Post Rise F | 27F Rise and Fall F |
| 3A Simple 2A | 40 Rise Only | 16A Fall A | 27AF Rise and Fall AF |
| 21A Simple 3A GRF | 40F Rise Only F | 260 Fall Only | 31A Post Burst Decrease A |
| 2A Simple 1AF | 4P Post Rise | 26F Fall F | 32A Absorption A |

RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500 and 200 MHz.

# STANFORD MEAN SOLAR MAGNETIC FIELD



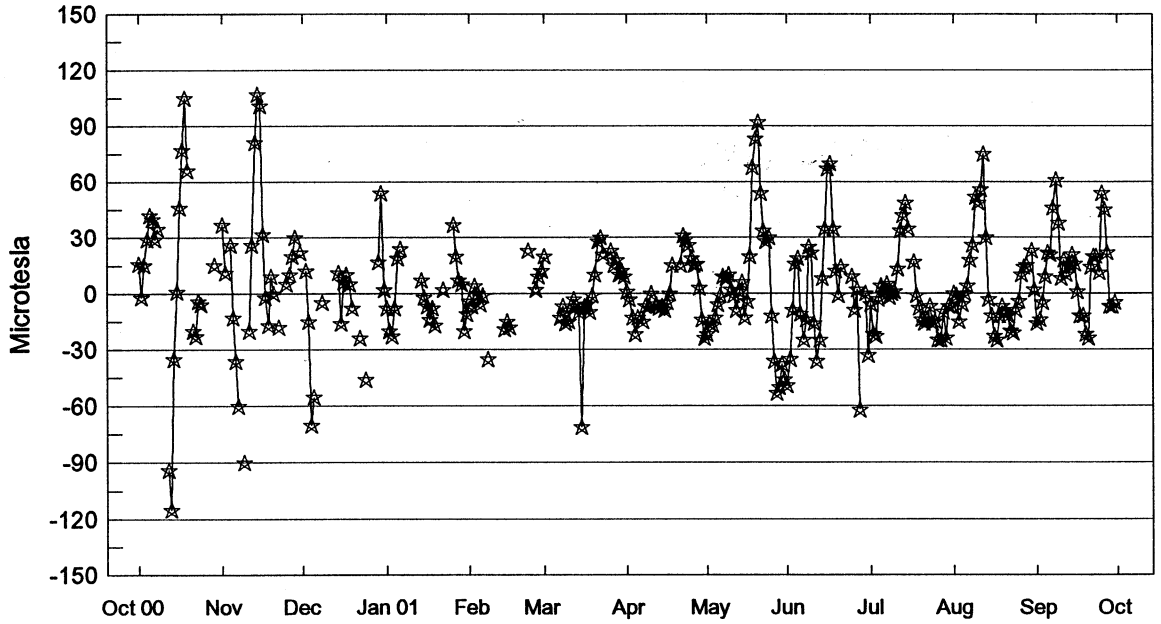

Mean Solar Magnetic Field Polarity: □ = field > 2 microT; ▒ = -2 microT ≤ field ≤ 2 microT

■ = field < -2 microT; No box = no data available

Observations are taken at 2000 UT. Rotation numbers given are the Bartels series, but the dates are not; these dates are five days earlier, to mark times of occurrence of phenomena on the Sun that affect the Earth during the given Bartels Rotation.

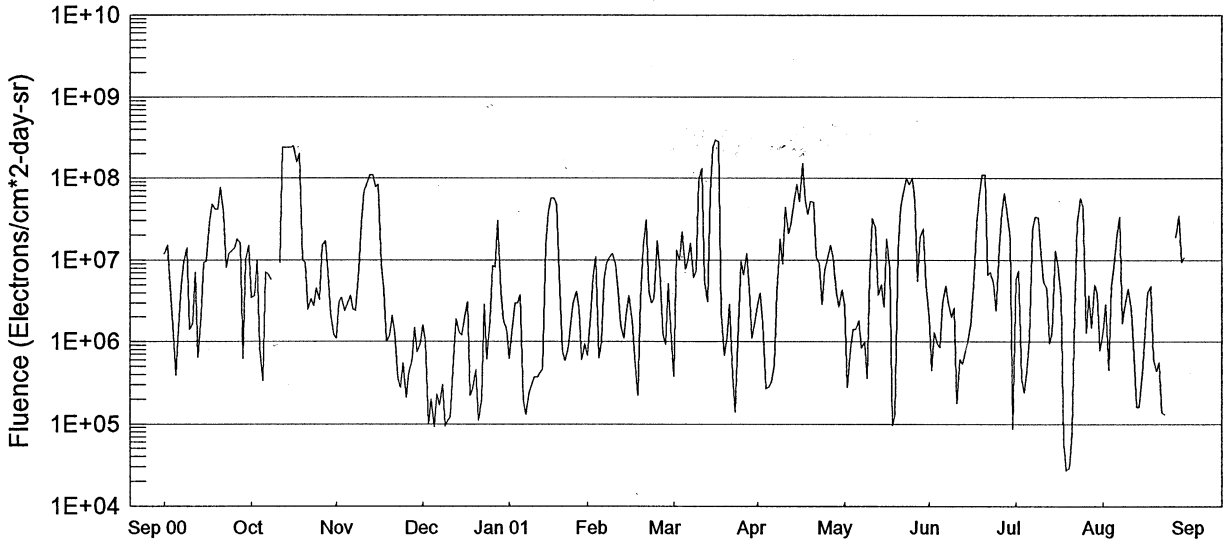
# Stanford Mean Solar Magnetic Field (Microtesla)
## "Sun-As-A-Star"






| Day | Oct 00 | Nov | Dec | Jan 01 | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 37 | --- | -8 | -4 | 20 | 1 | -22 | -35 | -6 | 0 | -16 |
| 2 | -2 | 11 | 12 | -20 | -7 | --- | -3 | -16 | -9 | -22 | -1 | -14 |
| 3 | 15 | --- | -15 | -23 | 4 | --- | -13 | -17 | 16 | -23 | -15 | -5 |
| 4 | 29 | 26 | -70 | -8 | 0 | --- | -22 | -13 | 19 | -3 | -6 | 9 |
| 5 | 42 | -13 | -55 | 19 | -6 | --- | -13 | -6 | -11 | 4 | 0 | 22 |
| 6 | 40 | -36 | --- | 24 | -1 | --- | --- | -1 | -25 | 2 | 4 | 21 |
| 7 | 29 | -60 | --- | --- | --- | -13 | -15 | 9 | -14 | 5 | 18 | 46 |
| 8 | 35 | --- | -5 | --- | -35 | -7 | -7 | 8 | 25 | -2 | 26 | 61 |
| 9 | --- | -90 | --- | --- | --- | -16 | -7 | 10 | 22 | 0 | 52 | 38 |
| 10 | --- | --- | --- | --- | --- | -15 | 0 | 2 | -16 | 1 | 49 | 8 |
| 11 | --- | -20 | --- | --- | --- | -7 | --- | -1 | -36 | 13 | 56 | 18 |
| 12 | -94 | 26 | --- | --- | --- | -3 | -6 | -9 | -25 | 34 | 75 | 10 |
| 13 | -115 | 81 | --- | --- | --- | -7 | -8 | 1 | 8 | 42 | 30 | 15 |
| 14 | -35 | 107 | 11 | 7 | -19 | -10 | -7 | 6 | 35 | 49 | -3 | 21 |
| 15 | 1 | 101 | -16 | -2 | -15 | -71 | -9 | -13 | 67 | 35 | -12 | 16 |
| 16 | 46 | 32 | 6 | -7 | -18 | -7 | -5 | -4 | 70 | --- | -23 | 1 |
| 17 | 77 | -2 | 10 | -14 | --- | -6 | 0 | 20 | 35 | 17 | -25 | -12 |
| 18 | 105 | -17 | 5 | -8 | --- | -10 | 15 | 68 | 12 | -1 | -12 | -12 |
| 19 | 66 | 9 | -8 | -17 | --- | -1 | --- | 83 | -1 | -8 | -7 | -22 |
| 20 | --- | 0 | --- | --- | --- | 10 | --- | 92 | 14 | -14 | -10 | -24 |
| 21 | -20 | --- | --- | --- | --- | 28 | 15 | 54 | --- | -16 | -12 | 14 |
| 22 | -23 | -18 | -24 | 2 | --- | 30 | 31 | 34 | --- | -14 | -20 | 20 |
| 23 | -4 | --- | --- | --- | 23 | 21 | 29 | 28 | --- | -7 | -21 | 20 |
| 24 | -6 | --- | -46 | --- | --- | --- | 26 | 30 | 9 | -16 | -9 | 11 |
| 25 | --- | 5 | --- | --- | --- | --- | 19 | -12 | -9 | -15 | -4 | 54 |
| 26 | --- | 10 | --- | 37 | 2 | 23 | 15 | -36 | 2 | -25 | 10 | 45 |
| 27 | --- | 20 | --- | 20 | 9 | 15 | 16 | -53 | -62 | -25 | 14 | 22 |
| 28 | --- | 30 | --- | 7 | 12 | 18 | 3 | -50 | --- | -10 | 15 | -7 |
| 29 | 15 | --- | 17 | 5 | | 10 | -14 | -38 | 0 | -24 | --- | -7 |
| 30 | --- | 22 | 54 | -20 | | 12 | -24 | -46 | -33 | -7 | 23 | -5 |
| 31 | --- | | 2 | -11 | | 9 | | -49 | | -7 | 2 | |

# GOES Daily Electron Fluence
## Oct 2000 - Sep 2001




| Day | Oct 00 | Nov | Dec | Jan 01 | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.2E+07 | 3.5E+06 | 1.1E+06 | 1.6E+06 | 6.2E+05 | 6.8E+05 | 3.8E+05 | 2.9E+06 | 2.8E+06 | 2.0E+06 | 5.9E+06 | 1.3E+06 |
| 2 | 1.5E+07 | 3.7E+06 | 3.1E+06 | 1.0E+06 | 1.3E+06 | 2.1E+06 | 1.3E+07 | 4.0E+06 | 2.8E+05 | 4.5E+05 | 7.4E+06 | 2.9E+06 |
| 3 | 4.8E+06 | 1.0E+07 | 3.5E+06 | 1.0E+05 | 3.0E+06 | 6.4E+06 | 1.0E+07 | 1.7E+06 | 8.1E+05 | 1.3E+06 | 3.5E+05 | 4.6E+05 |
| 4 | 1.6E+06 | 8.3E+05 | 2.4E+06 | 2.0E+05 | 3.0E+06 | 1.1E+07 | 2.2E+07 | 2.7E+05 | 1.4E+06 | 9.3E+05 | 2.4E+05 | 4.8E+06 |
| 5 | 3.9E+05 | 3.3E+05 | 2.9E+06 | 9.2E+04 | 3.8E+06 | 6.3E+05 | 7.8E+06 | 2.8E+05 | 1.4E+06 | 8.6E+05 | 4.5E+05 | 8.6E+06 |
| 6 | 1.5E+06 | 7.1E+06 | 3.7E+06 | 2.3E+05 | 1.9E+05 | 1.0E+06 | 9.8E+06 | 3.3E+05 | 1.8E+06 | 3.0E+06 | 1.1E+06 | 2.1E+07 |
| 7 | 4.8E+06 | 6.8E+06 | 2.5E+06 | 1.7E+05 | 1.3E+05 | 5.8E+06 | 1.6E+07 | 5.3E+05 | 8.4E+05 | 4.9E+06 | 2.4E+07 | 3.4E+07 |
| 8 | 9.5E+06 | 5.8E+06 | 2.4E+06 | 3.0E+05 | 2.4E+05 | 9.3E+06 | 6.2E+06 | 4.2E+06 | 1.0E+06 | 3.0E+06 | 3.4E+07 | 1.7E+06 |
| 9 | 1.4E+07 | -999 | 7.6E+06 | 9.3E+04 | 3.0E+05 | 1.1E+07 | 7.4E+06 | 1.8E+07 | 3.6E+05 | 2.0E+06 | 3.3E+07 | 2.8E+06 |
| 10 | 1.4E+06 | -999 | 2.8E+07 | 1.1E+05 | 3.7E+05 | 1.2E+07 | 9.5E+07 | 9.0E+06 | 6.5E+06 | 2.6E+06 | 1.2E+07 | 4.5E+06 |
| 11 | 1.7E+06 | 9.4E+06 | 6.9E+07 | 1.2E+05 | 3.7E+05 | 9.1E+06 | 1.3E+08 | 4.4E+07 | 3.2E+07 | 1.8E+05 | 5.4E+06 | 2.5E+06 |
| 12 | 7.1E+06 | 2.4E+08 | 8.9E+07 | 6.1E+05 | 4.2E+05 | 4.2E+06 | 5.6E+06 | 2.1E+07 | 2.5E+07 | 6.1E+05 | 4.6E+06 | 6.9E+05 |
| 13 | 6.4E+05 | 2.4E+08 | 1.1E+08 | 1.9E+06 | 4.7E+05 | 1.6E+06 | 3.1E+06 | 2.8E+07 | 3.8E+06 | 5.4E+05 | 9.6E+05 | 1.6E+05 |
| 14 | 2.1E+06 | 2.4E+08 | 1.1E+08 | 1.3E+06 | 1.5E+07 | 1.1E+06 | 6.5E+07 | 5.5E+07 | 5.0E+06 | 7.5E+05 | 1.3E+06 | 1.6E+05 |
| 15 | 9.4E+06 | 2.4E+08 | 7.8E+07 | 1.2E+06 | 3.9E+07 | 2.3E+06 | 2.4E+08 | 8.4E+07 | 2.7E+06 | 1.0E+06 | 1.3E+07 | 4.1E+05 |
| 16 | 9.7E+06 | 2.5E+08 | 8.3E+07 | 1.9E+06 | 5.7E+07 | 3.7E+06 | 3.0E+08 | 5.2E+07 | 1.8E+07 | 1.7E+06 | 9.0E+06 | 1.3E+06 |
| 17 | 2.9E+07 | 1.6E+08 | 8.9E+06 | 3.1E+06 | 5.6E+07 | 1.8E+06 | 2.8E+08 | 1.5E+08 | 7.9E+06 | 6.6E+06 | 3.6E+06 | 4.0E+06 |
| 18 | 4.8E+07 | 2.0E+08 | 4.3E+06 | 2.2E+05 | 4.7E+07 | 6.5E+05 | 2.2E+06 | 5.4E+07 | 9.5E+04 | 2.8E+07 | 5.9E+04 | 4.8E+06 |
| 19 | 4.2E+07 | 1.0E+07 | 1.0E+06 | 2.7E+05 | 6.8E+06 | 2.2E+05 | 6.8E+05 | 3.6E+07 | 1.3E+05 | 6.2E+07 | 2.7E+04 | 6.3E+05 |
| 20 | 4.2E+07 | 9.4E+06 | 1.2E+06 | 4.6E+05 | 7.7E+05 | 3.4E+06 | 1.1E+06 | 5.2E+07 | 1.3E+07 | 1.1E+08 | 2.9E+04 | 4.4E+05 |
| 21 | 7.6E+07 | 2.5E+06 | 2.1E+06 | 1.1E+05 | 5.9E+05 | 1.4E+07 | 2.9E+06 | 5.1E+07 | 4.5E+07 | 1.1E+08 | 8.0E+04 | 5.6E+05 |
| 22 | 3.7E+07 | 3.4E+06 | 1.3E+06 | 2.0E+05 | 8.2E+05 | 3.1E+07 | 3.9E+05 | 1.1E+07 | 7.2E+07 | 6.6E+06 | 2.2E+06 | 1.4E+05 |
| 23 | 8.1E+06 | 2.8E+06 | 3.5E+05 | 2.9E+06 | 1.7E+06 | 4.2E+06 | 1.4E+05 | 9.1E+06 | 1.0E+08 | 7.2E+06 | 2.8E+07 | 1.3E+05 |
| 24 | 1.2E+07 | 4.6E+06 | 2.8E+05 | 6.1E+05 | 3.1E+06 | 3.0E+06 | 1.0E+06 | 2.9E+06 | 8.4E+07 | 5.3E+06 | 5.6E+07 | -999 |
| 25 | 1.3E+07 | 3.3E+06 | 5.5E+05 | 1.8E+06 | 4.1E+06 | 3.4E+06 | 9.6E+06 | 7.5E+06 | 1.0E+08 | 2.4E+06 | 4.5E+07 | -999 |
| 26 | 1.4E+07 | 1.5E+07 | 2.1E+05 | 8.6E+06 | 2.5E+06 | 1.7E+07 | 6.6E+06 | 1.1E+07 | 5.4E+07 | 1.4E+07 | 1.3E+06 | -999 |
| 27 | 1.8E+07 | 1.7E+07 | 4.3E+05 | 8.2E+06 | 6.0E+05 | 7.6E+06 | 1.2E+07 | 1.5E+07 | 5.6E+06 | 3.9E+07 | 3.7E+06 | 1.9E+07 |
| 28 | 1.6E+07 | 7.0E+06 | 5.8E+05 | 3.0E+07 | 9.3E+05 | 1.2E+06 | 4.5E+06 | 1.1E+07 | 1.9E+07 | 6.5E+07 | 1.5E+06 | 3.5E+07 |
| 29 | 6.2E+05 | 2.2E+06 | 1.5E+06 | 4.2E+06 |  | 9.4E+05 | 1.1E+06 | 4.2E+06 | 2.4E+07 | 3.4E+07 | 5.0E+06 | 9.5E+06 |
| 30 | 1.0E+07 | 1.2E+06 | 7.5E+05 | 1.8E+06 |  | 5.2E+06 | 1.8E+06 | 2.7E+06 | 5.2E+06 | 1.9E+07 | 4.0E+06 | 1.1E+07 |
| 31 | 1.5E+07 |  | 9.3E+05 | 1.4E+06 |  | 1.1E+06 |  | 4.3E+06 |  | 8.7E+04 | 7.8E+05 |  |

**NOTE:** The electron detector responds significantly to protons above 32 MeV; therefore, electron data are contaminated when a proton event is in progress. These days are indicated with '-999' in the table and are not plotted. '--' indicates data not available.
NOTE: GOES9 data began April, 1996 and ended on 26 July, 1998. GOES8 is primary satellite as of 27 July, 1998.

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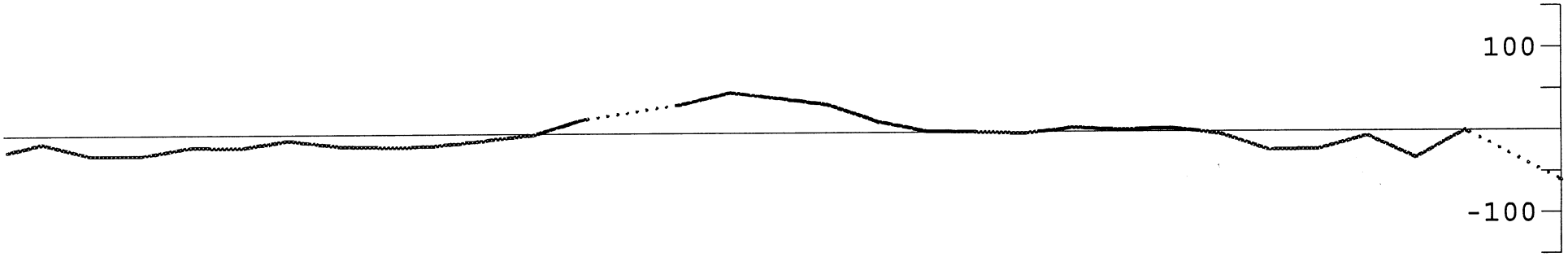
# SOLAR MAGNETIC FIELD SYNOPTIC CHART

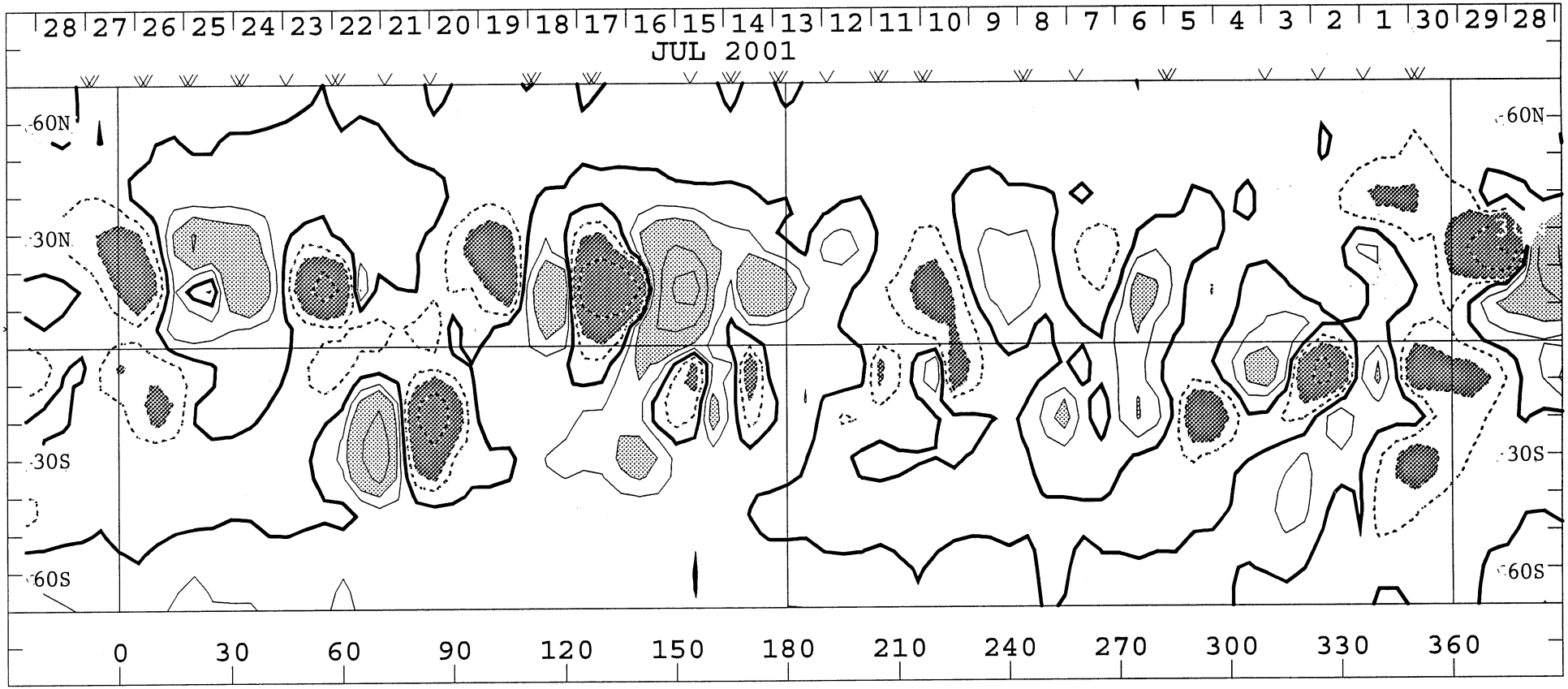
CARRINGTON ROTATION NUMBER 1978

(30 June to 27 July 2001)

**WILCOX SOLAR OBSERVATORY**




WSO - Photospheric Magnetic Field  0, ±100, 200, 500, 1000, 2000 MicroTesla




Heliographic Longitude

1978

# SOLAR MAGNETIC FIELD SYNOPTIC CHART

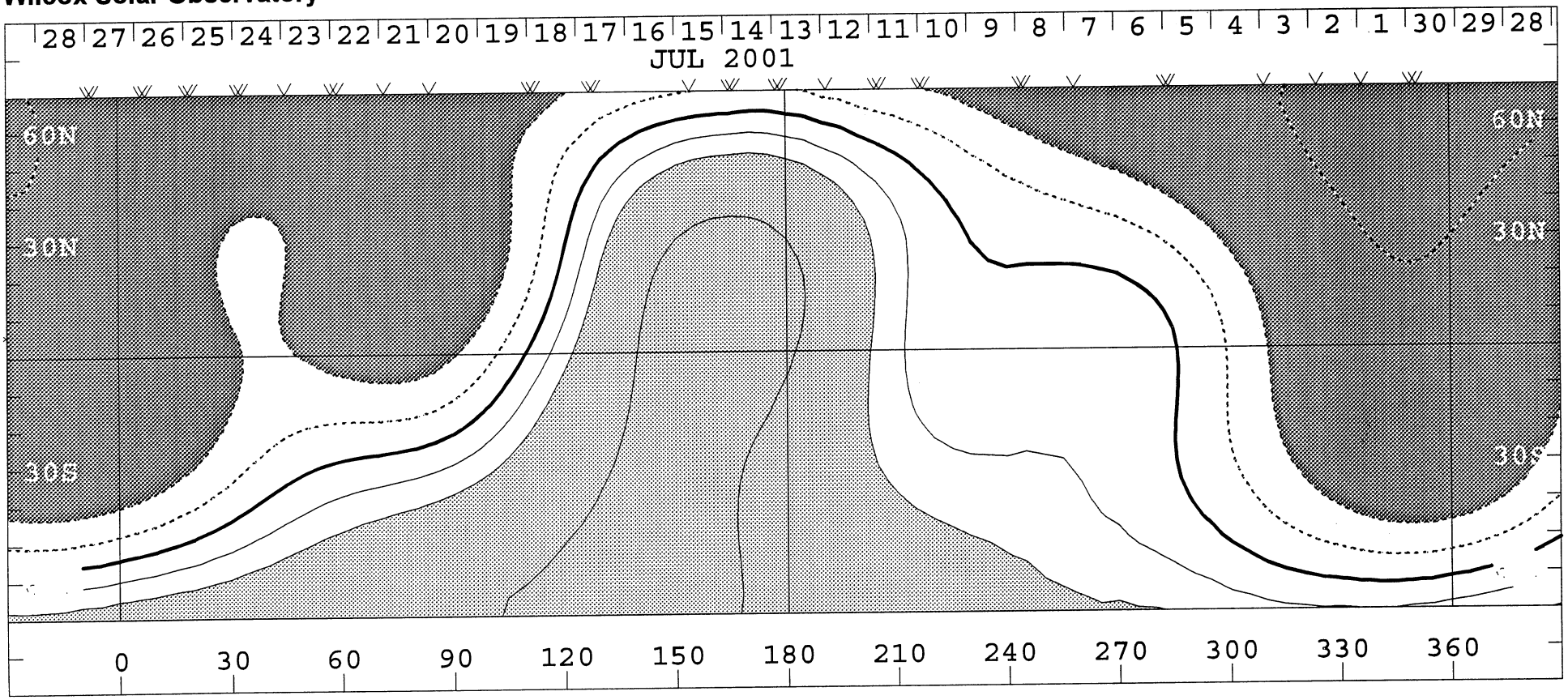
## SOURCE SURFACE FIELD

CARRINGTON ROTATION NUMBER 1978

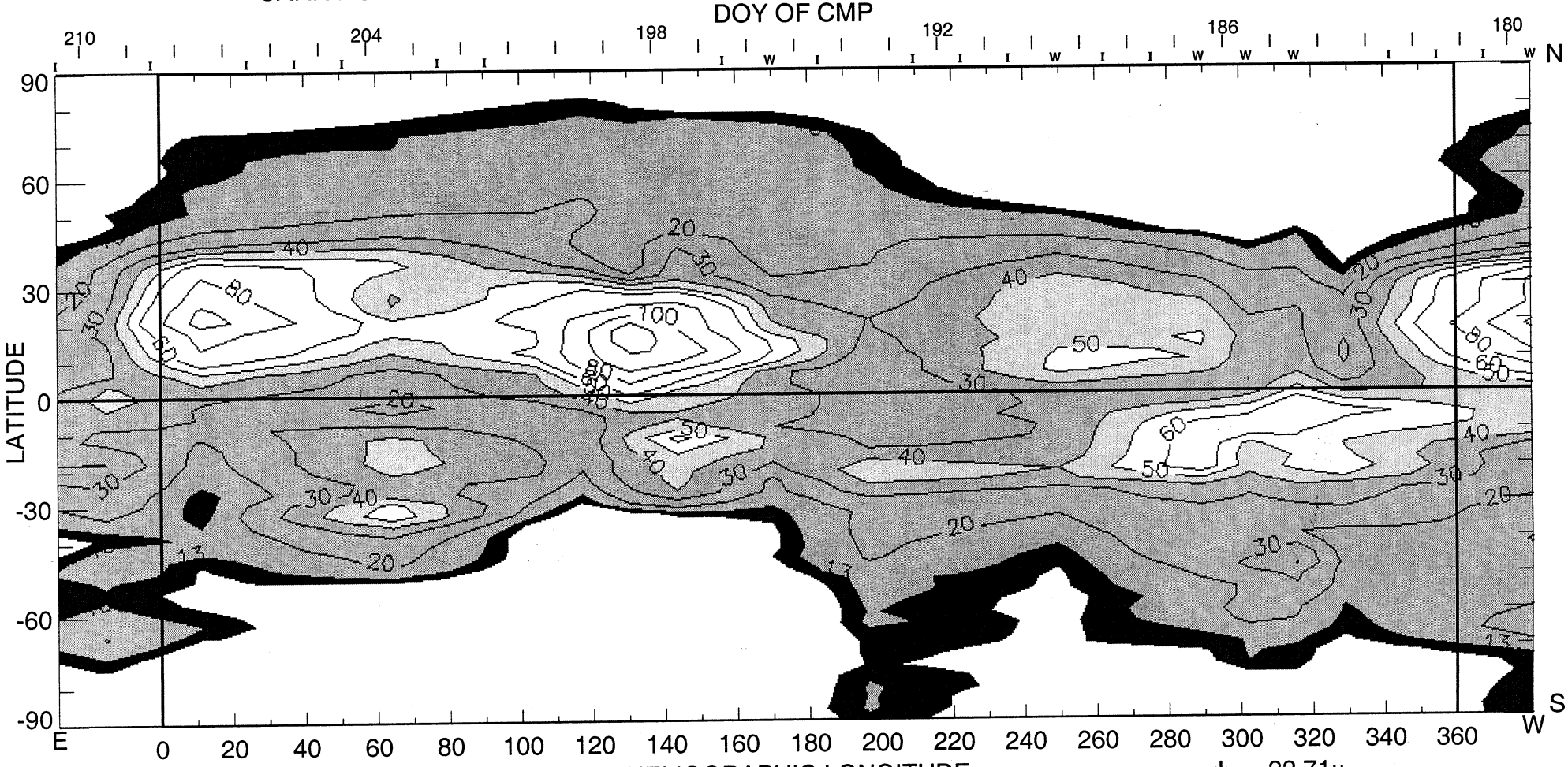
(30 June to 27 July 2001)

**Wilcox Solar Observatory**

0, ±1, 2, 5, 10, 20 microTesla



CARRINGTON ROTATION NUMBER 1978 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15$R_o$




<I> = 22.71μ

(19-Oct-01) 2001 E+W LIMB CONTOURS: 10, 13, 20, 30, 40, 50, 60, 80, 100, 120, 140, 160 MILLIONTHS OF $I_o$

CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

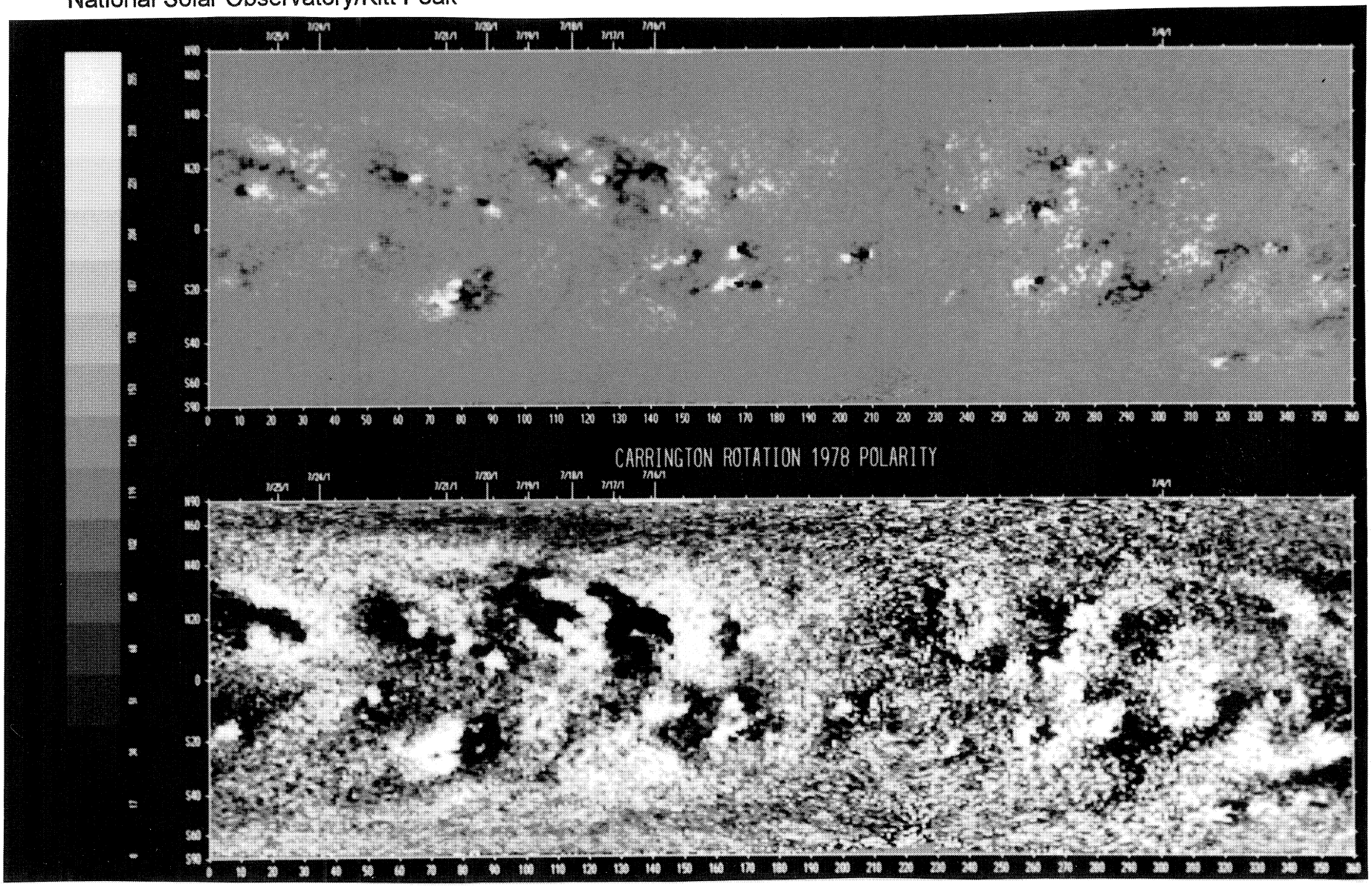
# SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1978

(30 June to 27 July 2001)

National Solar Observatory/Kitt Peak

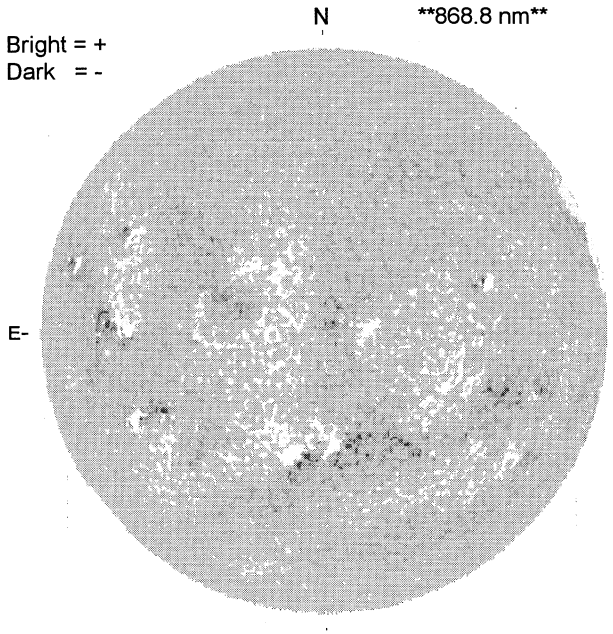
Dates of Observation




Heliographic Longitude

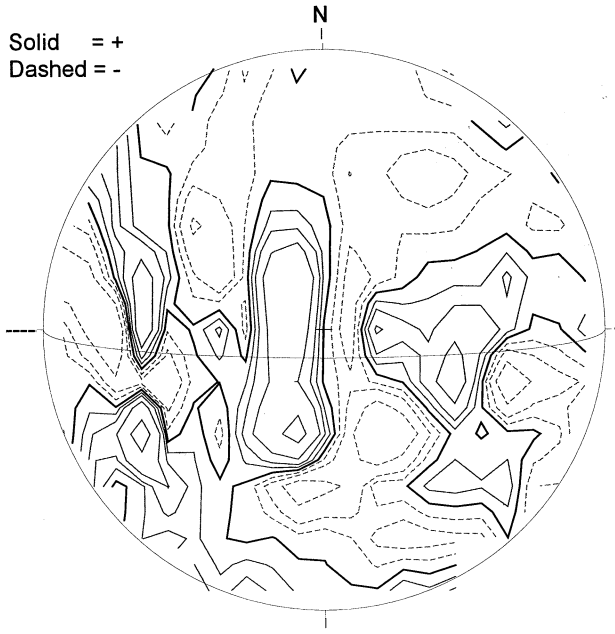
# AUGUST 1, 2001 ( P= 10.83, Bo = 5.79, Lo = 298.32)

## KITT PEAK MAGNETOGRAM



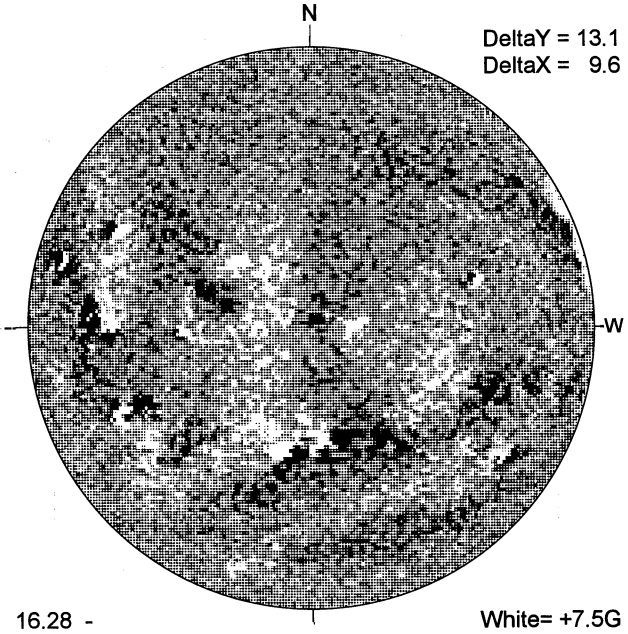

1534 UT

## STANFORD MAGNETOGRAM




2019 UT

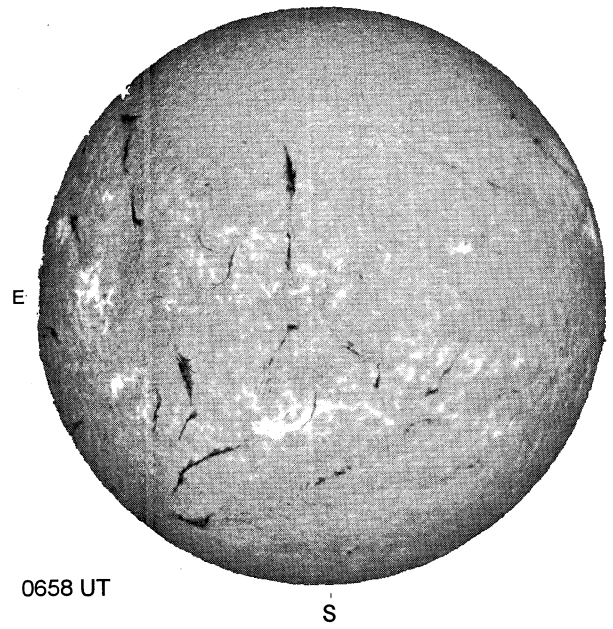
## MT. WILSON MAGNETOGRAM




16.28 -
17.20 UT

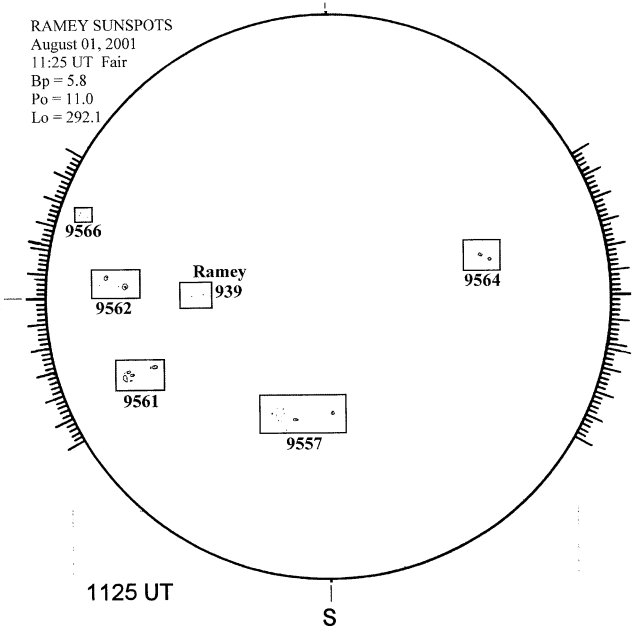
White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA



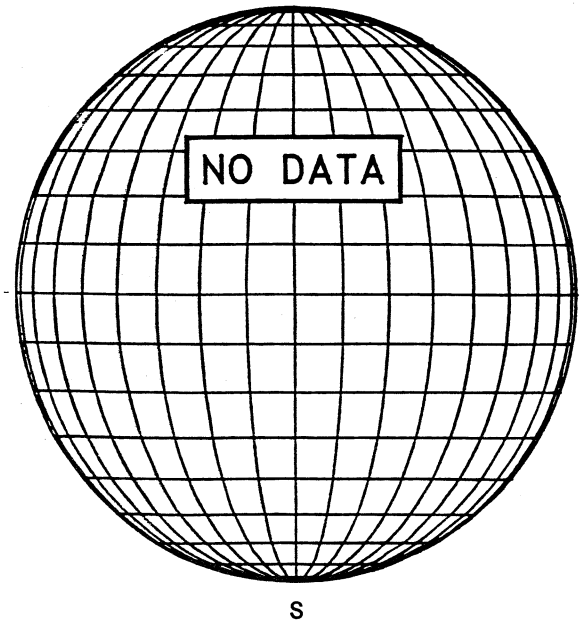

0658 UT

## RAMEY SUNSPOT



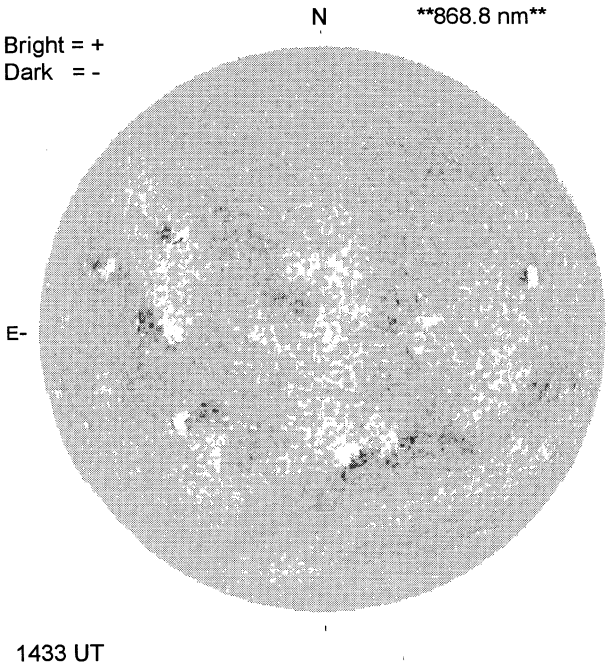

1125 UT

## LOMNICKY PEAK CORONA (1.04 Radii)----



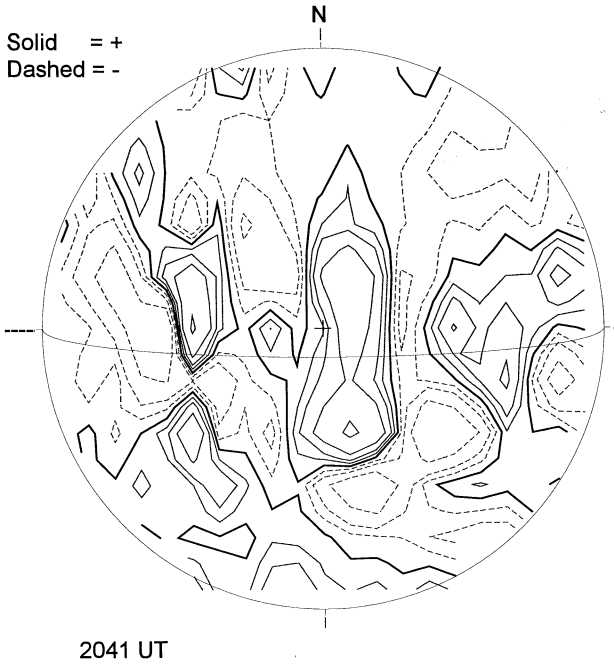
**AUGUST 2, 2001 ( P= 11.23, Bo = 5.86, Lo = 285.10)**

KITT PEAK MAGNETOGRAM



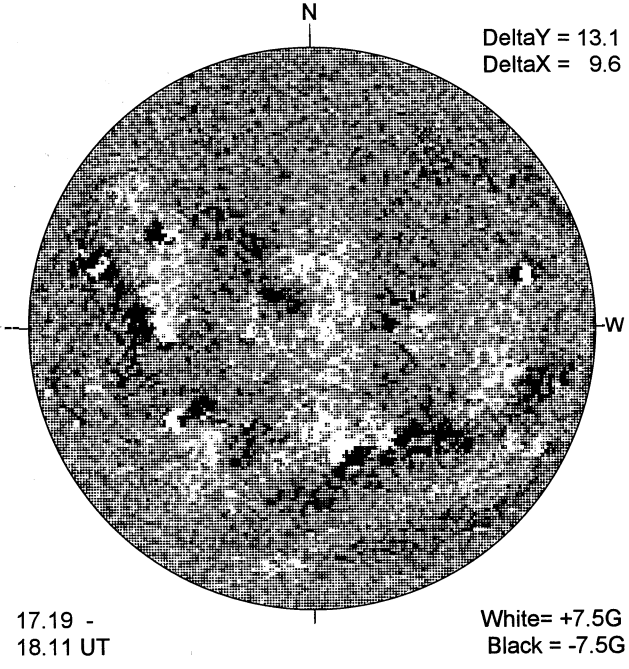

1433 UT

STANFORD MAGNETOGRAM




2041 UT

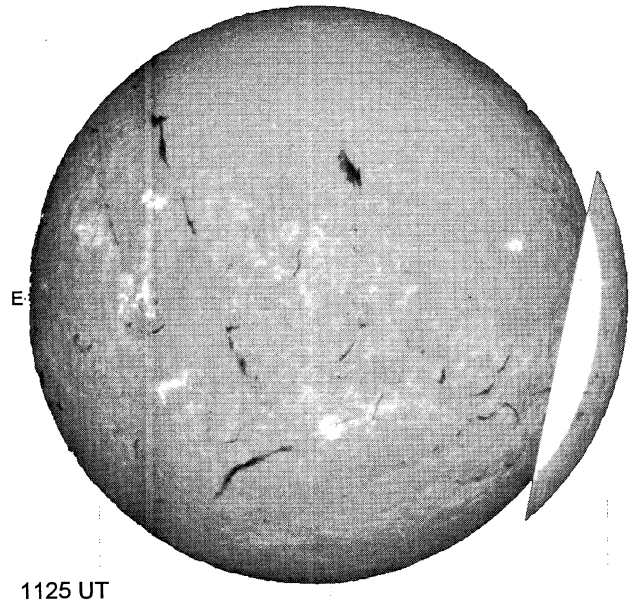
MT. WILSON MAGNETOGRAM




17.19 -
18.11 UT

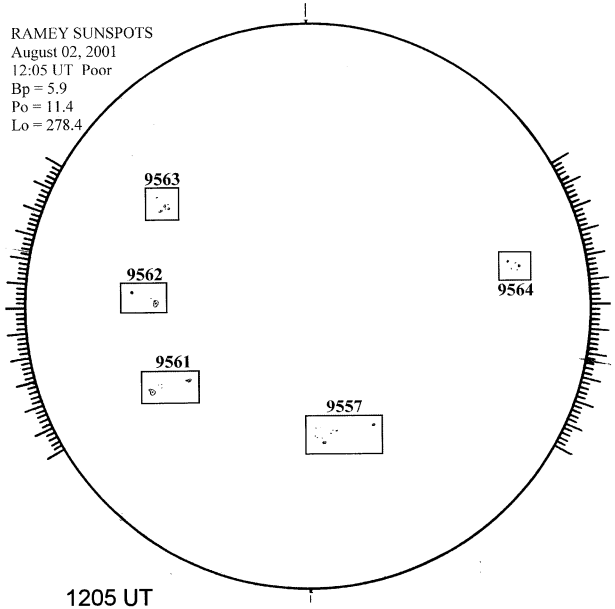
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



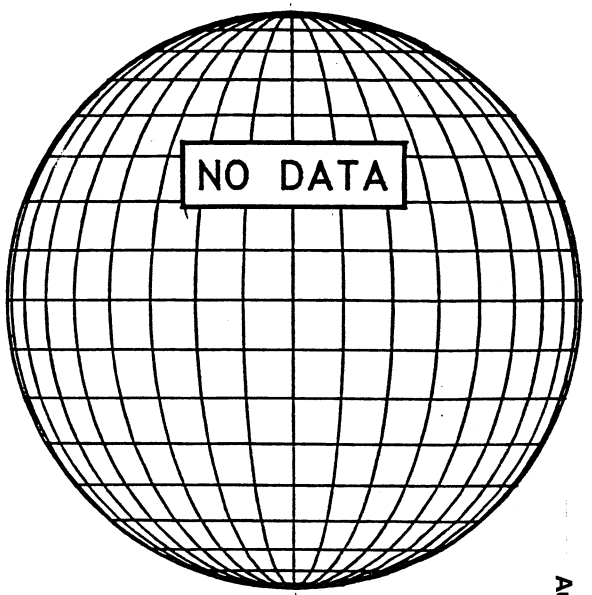

1125 UT

RAMEY SUNSPOT




1205 UT

LOMNICKY PEAK CORONA (1.04 Radii)----



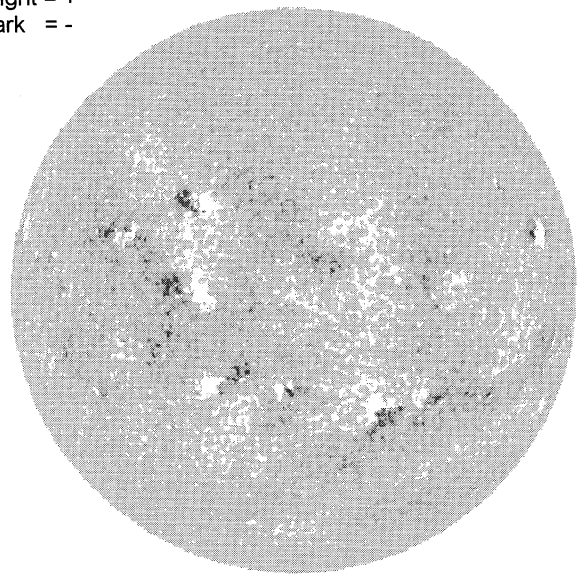

57
Aug 01

# AUGUST 3, 2001 ( P= 11.62, Bo = 5.93, Lo = 271.87)

## KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



E-

1413 UT

## STANFORD MAGNETOGRAM

N

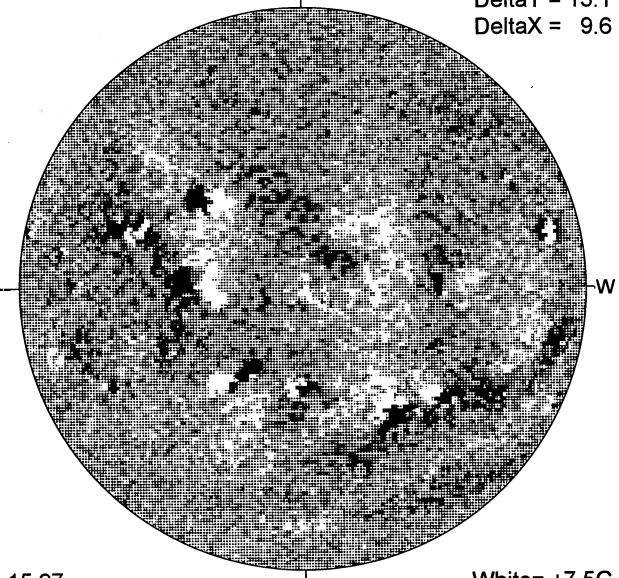
Solid = +
Dashed = -

2044 UT

## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

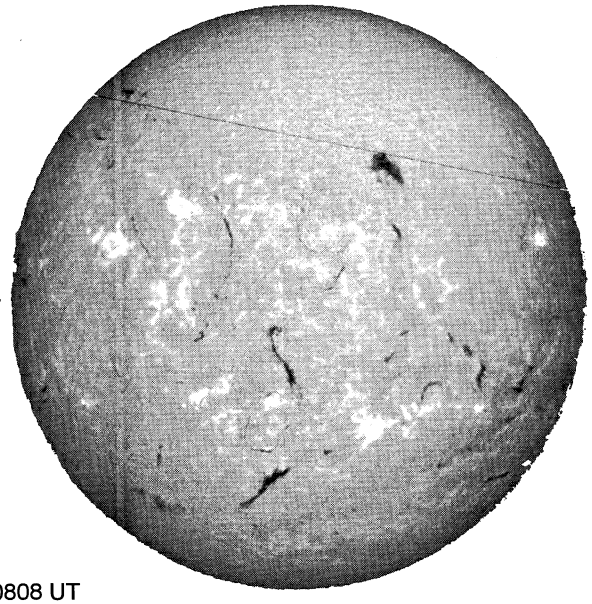


W

15.97 -
16.90 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA



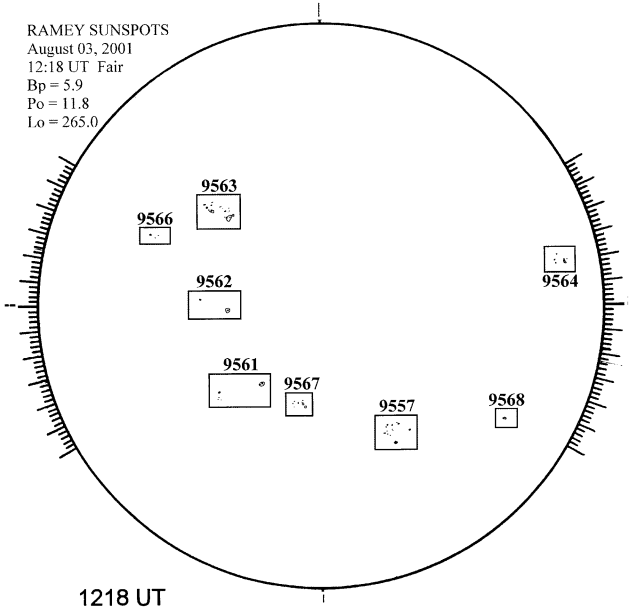
E-

0808 UT

S

## RAMEY SUNSPOT

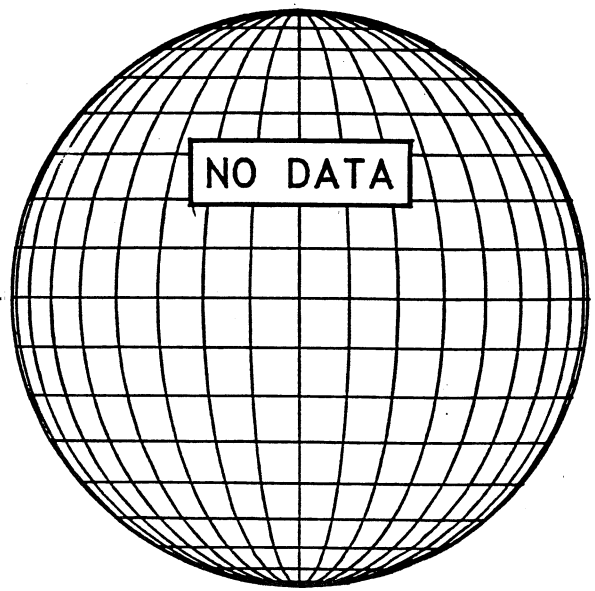
RAMEY SUNSPOTS
August 03, 2001
12:18 UT Fair
Bp = 5.9
Po = 11.8
Lo = 265.0




1218 UT

S

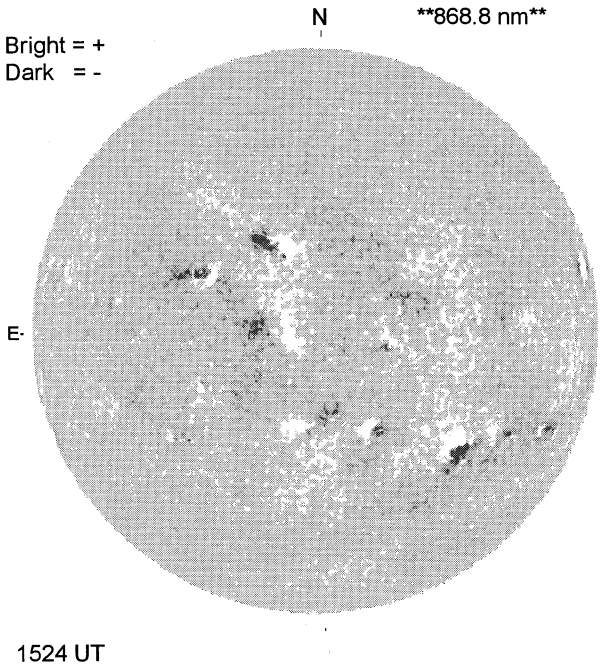
## LOMNICKY PEAK CORONA (1.04 Radii)----




S

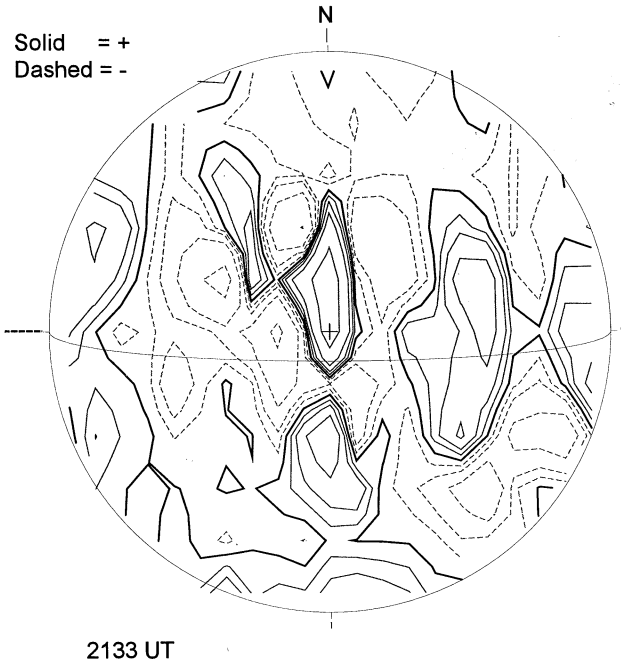
**AUGUST 4, 2001 ( P= 12.01, Bo = 6.00, Lo = 258.65)**

KITT PEAK MAGNETOGRAM



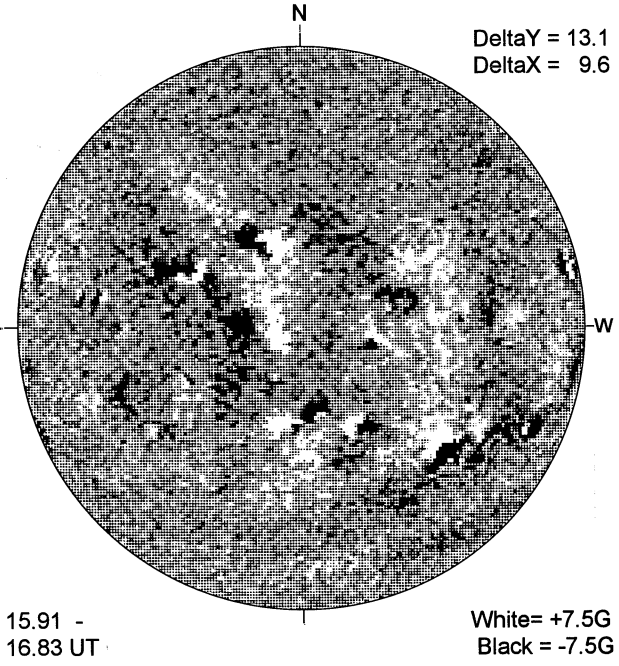

1524 UT

STANFORD MAGNETOGRAM




2133 UT

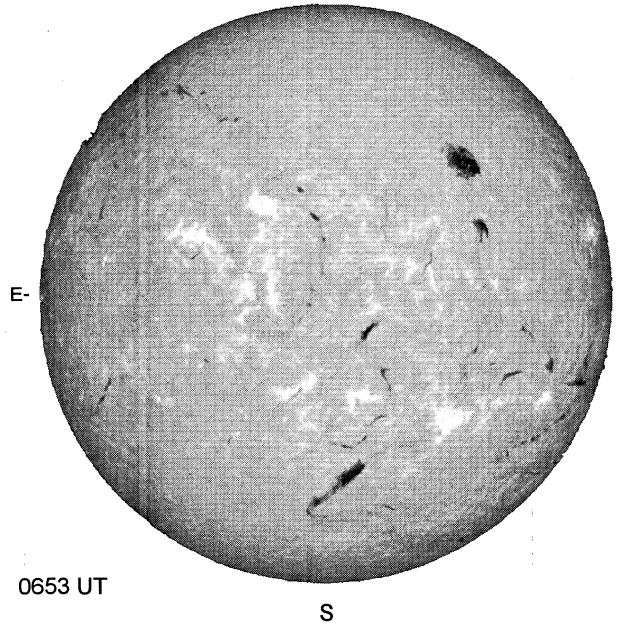
MT. WILSON MAGNETOGRAM




15.91 -
16.83 UT

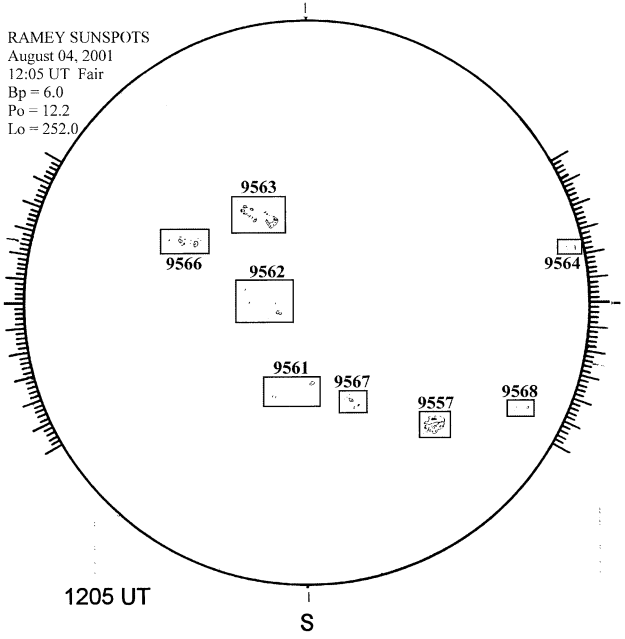
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



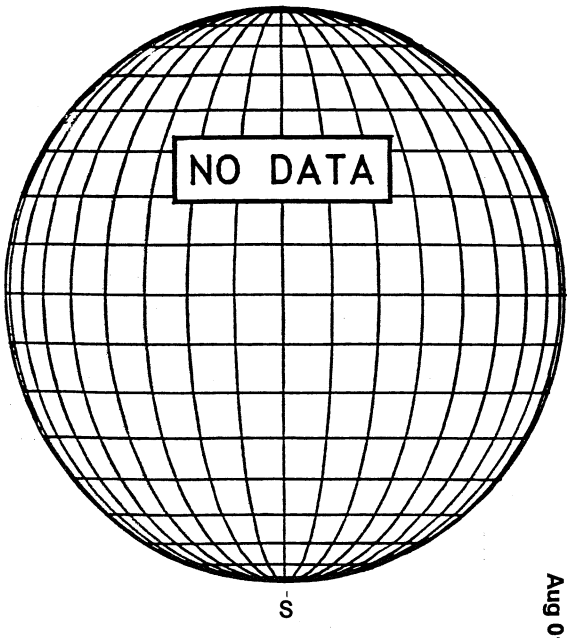

0653 UT

RAMEY SUNSPOT




1205 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

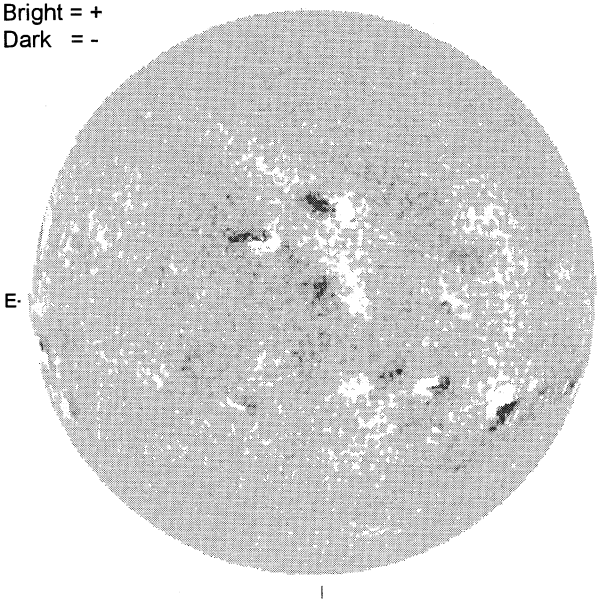


# AUGUST 5, 2001 ( P= 12.39, Bo = 6.07, Lo = 245.42)

## KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



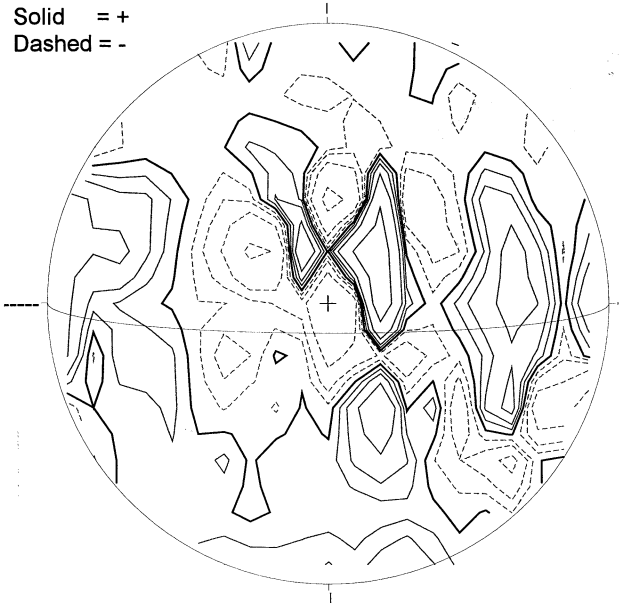
E

1558 UT

## STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

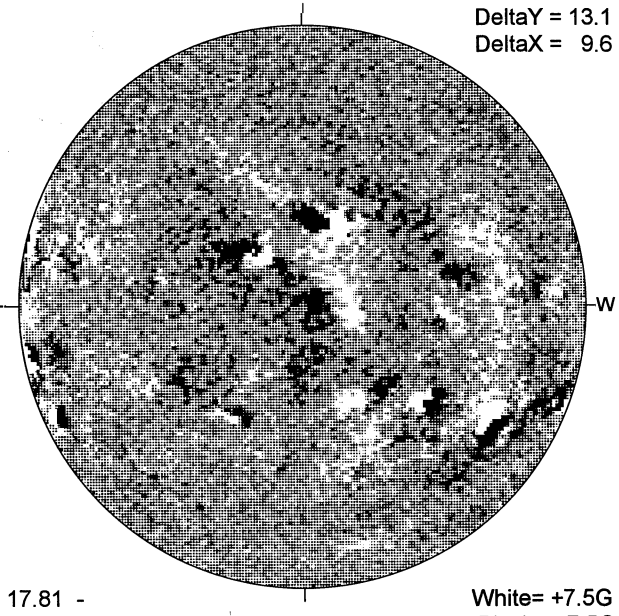


1847 UT

## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

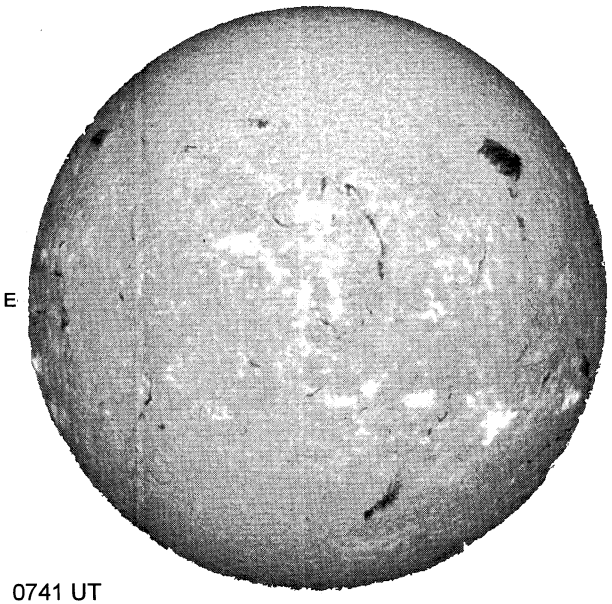


W

17.81 -
18.74 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA



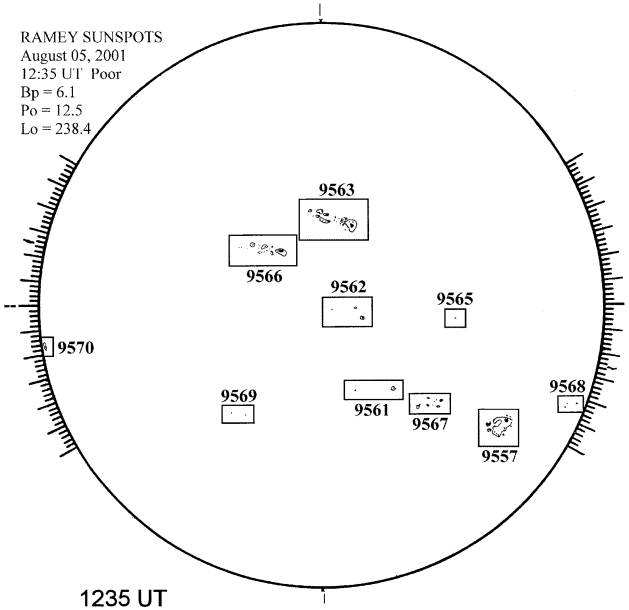
E

0741 UT

S

## RAMEY SUNSPOT

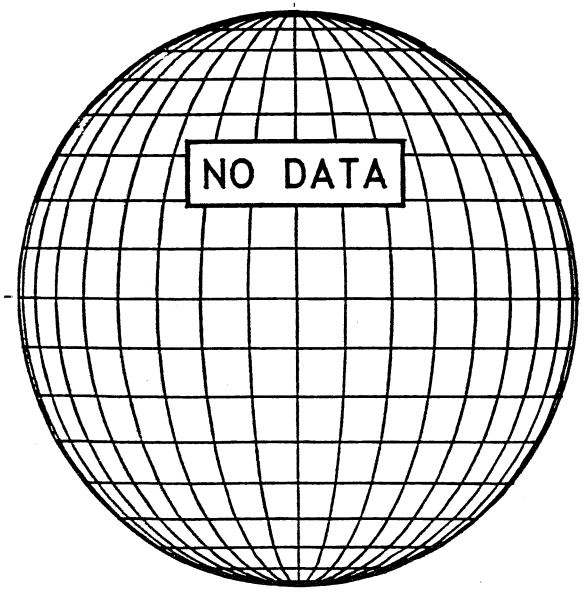
RAMEY SUNSPOTS
August 05, 2001
12:35 UT Poor
Bp = 6.1
Po = 12.5
Lo = 238.4




1235 UT

S

## SACRAMENTO PEAK CORONA (1.15 Radii)



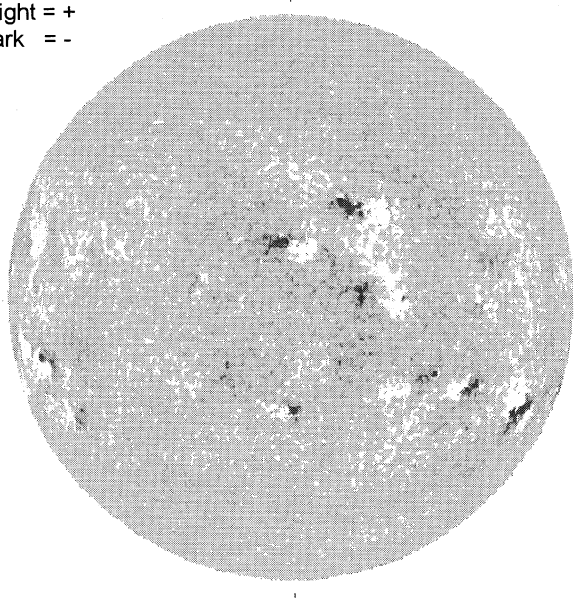

S

**AUGUST 6, 2001 ( P= 12.77, Bo = 6.14, Lo = 232.20)**

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



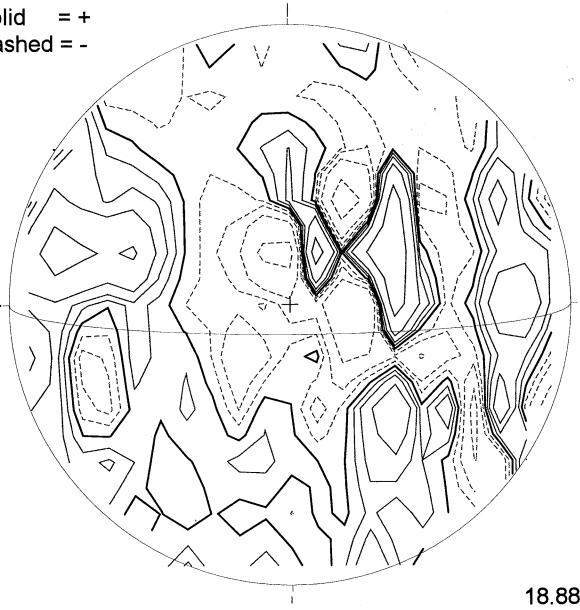
E-

1510 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

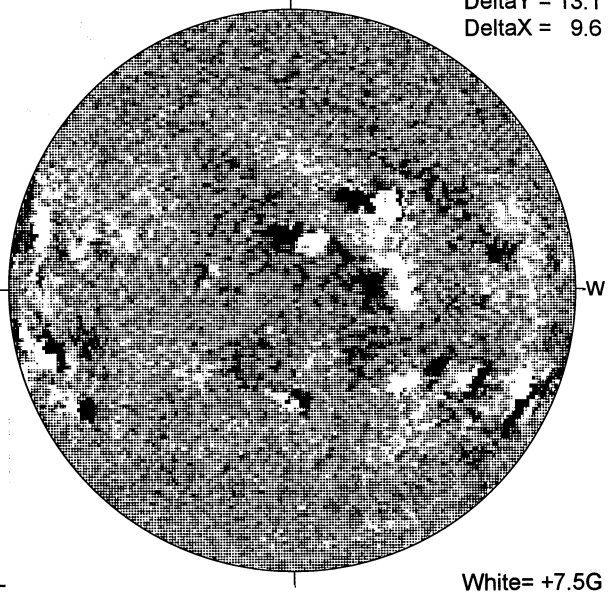


1647 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

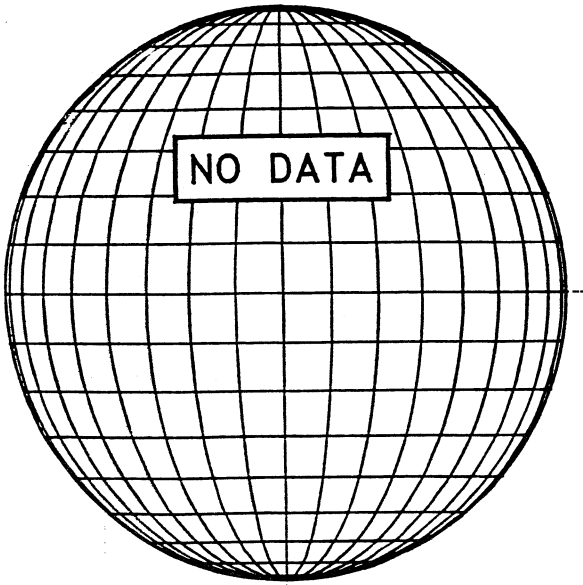


-W

18.88 -
19.81 UT

White= +7.5G
Black = -7.5G

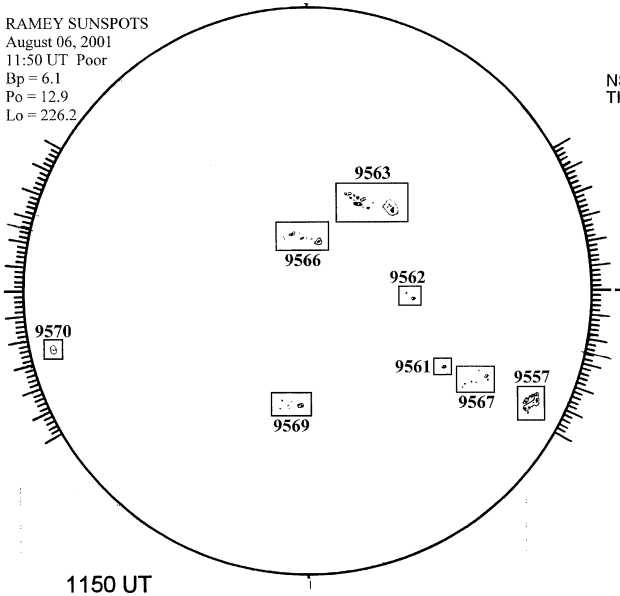
MEUDON H-ALPHA




E--

S

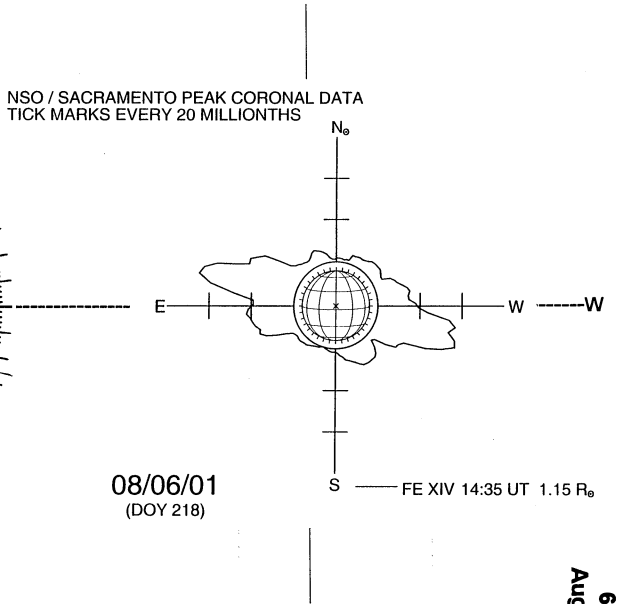
RAMEY SUNSPOT




1150 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----




08/06/01
(DOY 218)

S

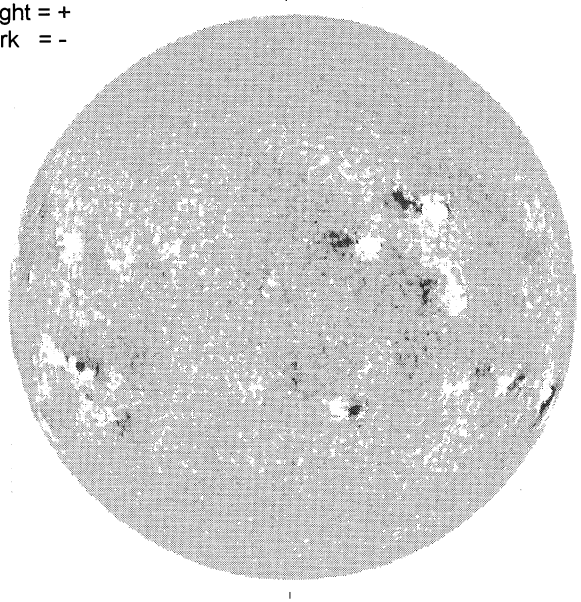
61
Aug 01

# AUGUST 7, 2001 ( P= 13.15, Bo = 6.20, Lo = 218.98)

## KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -

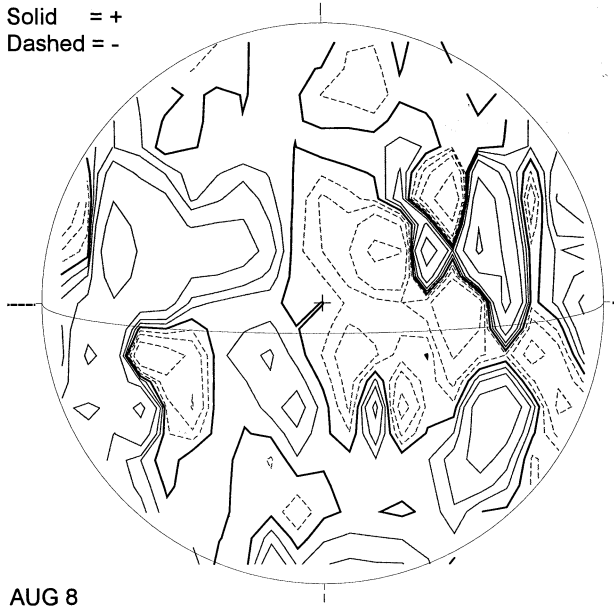



1532 UT

## STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

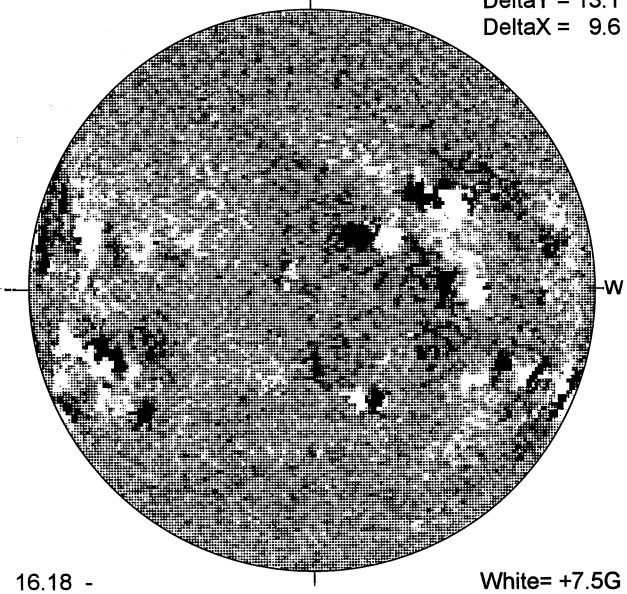


AUG 8
0007 UT

## MT. WILSON MAGNETOGRAM

N

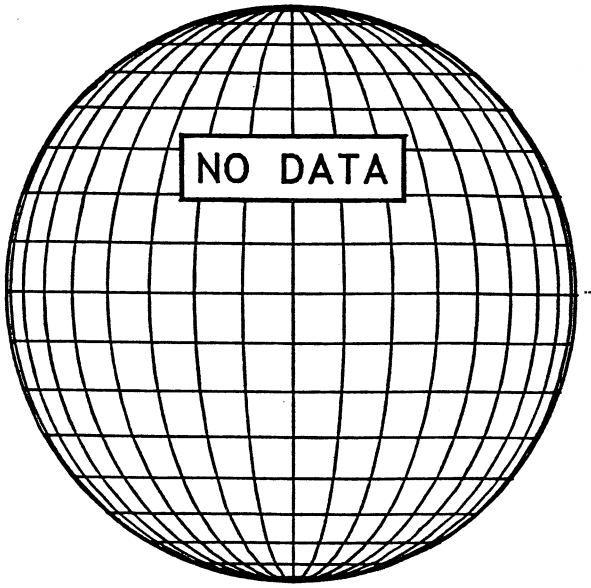
DeltaY = 13.1
DeltaX = 9.6



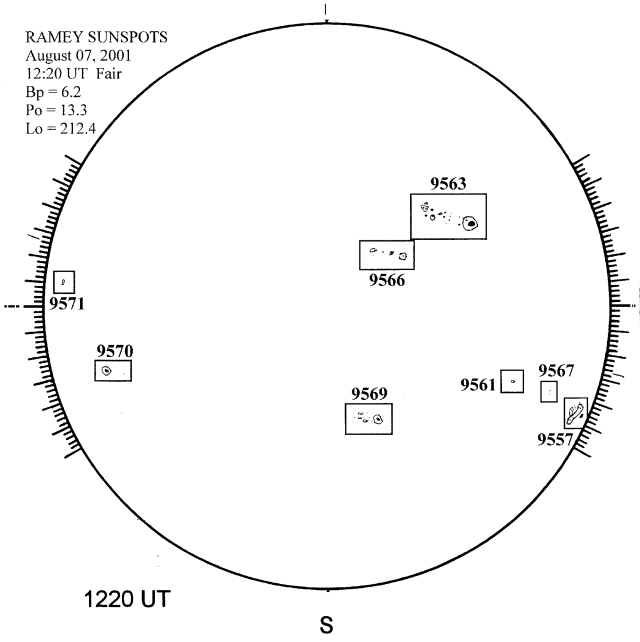

16.18 -
17.10 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

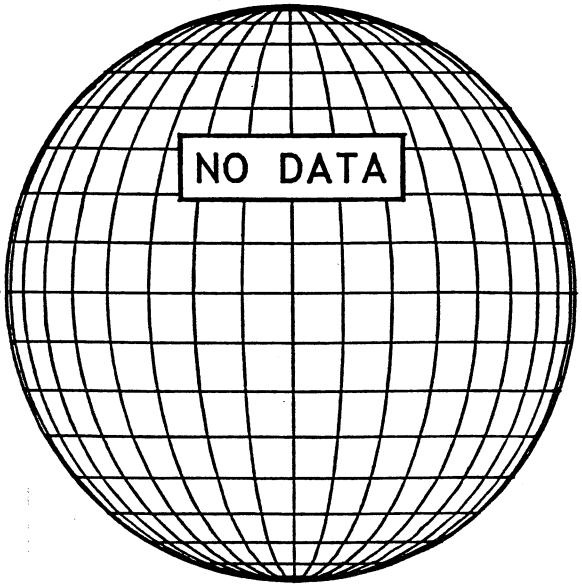



## RAMEY SUNSPOTS



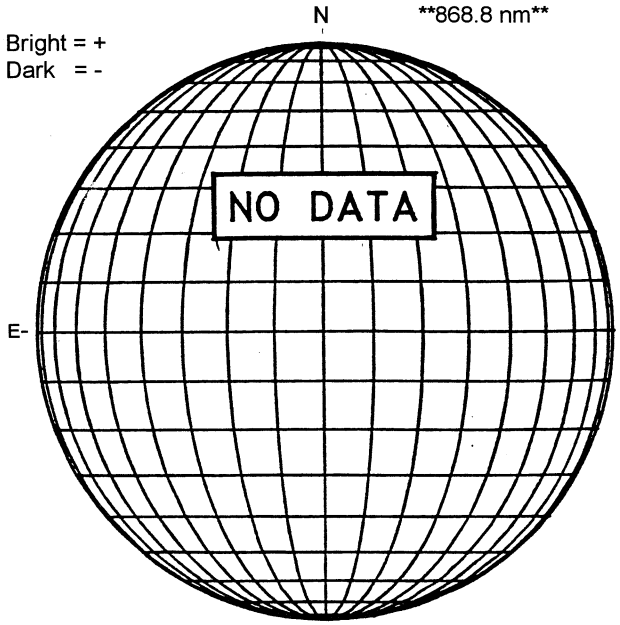

1220 UT

## LOMNICKY PEAK CORONA (1.04 Radii)----

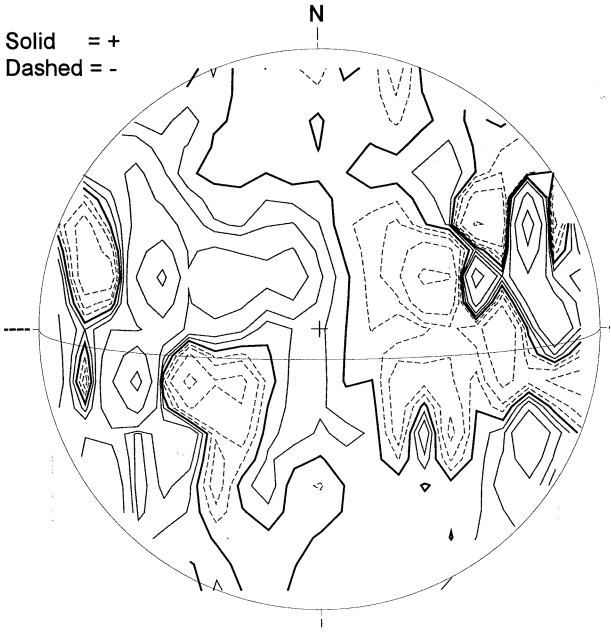


**AUGUST 8, 2001 ( P= 13.52, Bo = 6.26, Lo = 205.75)**

KITT PEAK MAGNETOGRAM

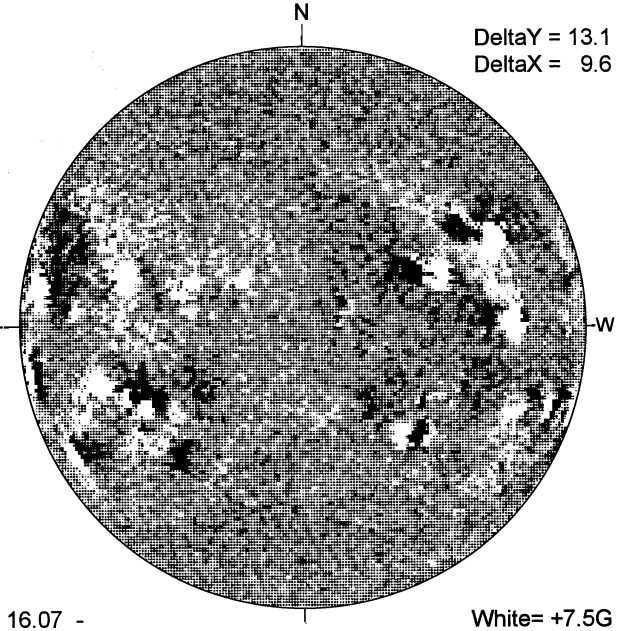



STANFORD MAGNETOGRAM




2350 UT

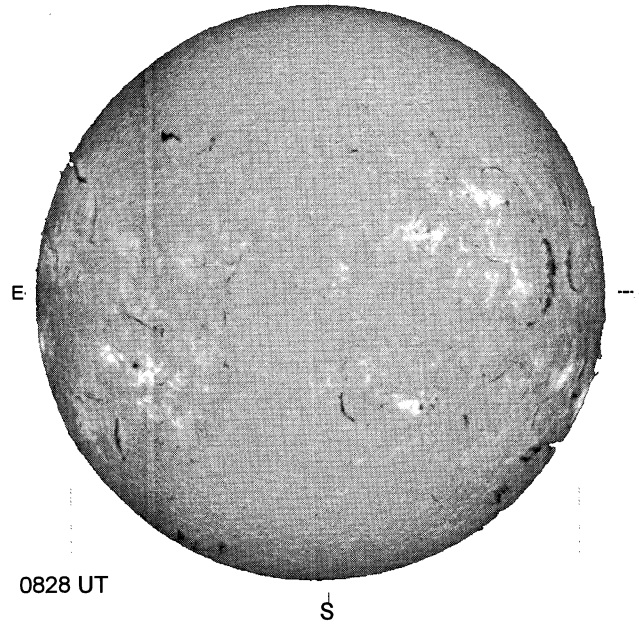
MT. WILSON MAGNETOGRAM




16.07 - 17.00 UT

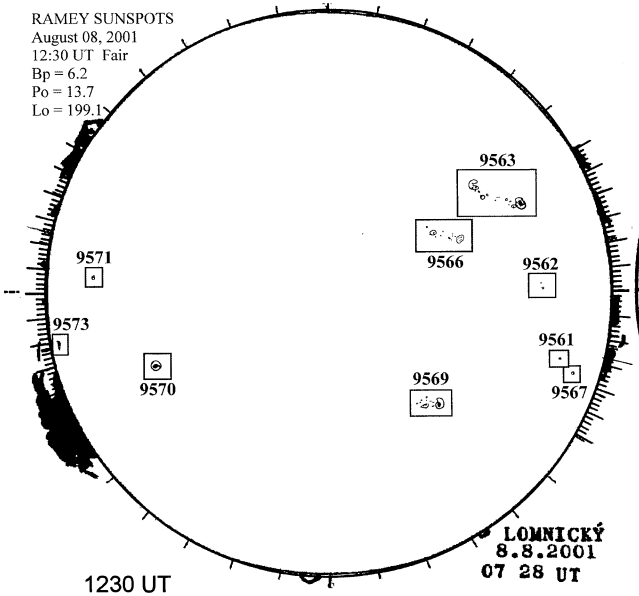
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



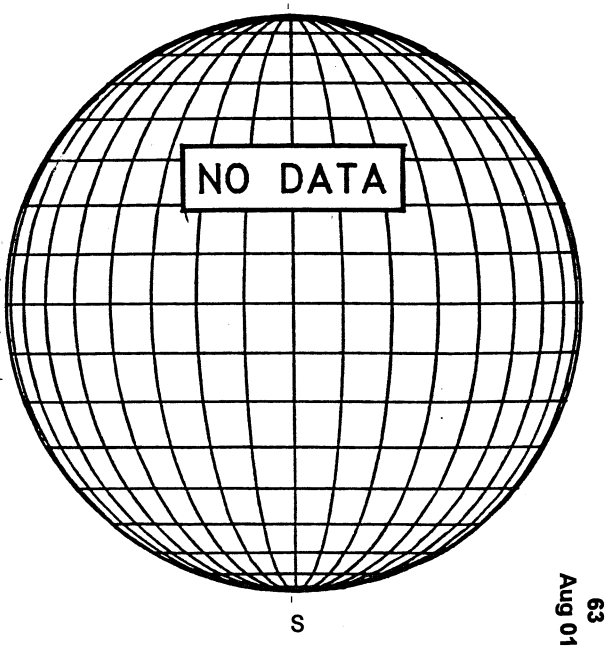

0828 UT

RAMEY SUNSPOT




1230 UT
0728 UT LOMN Prom S

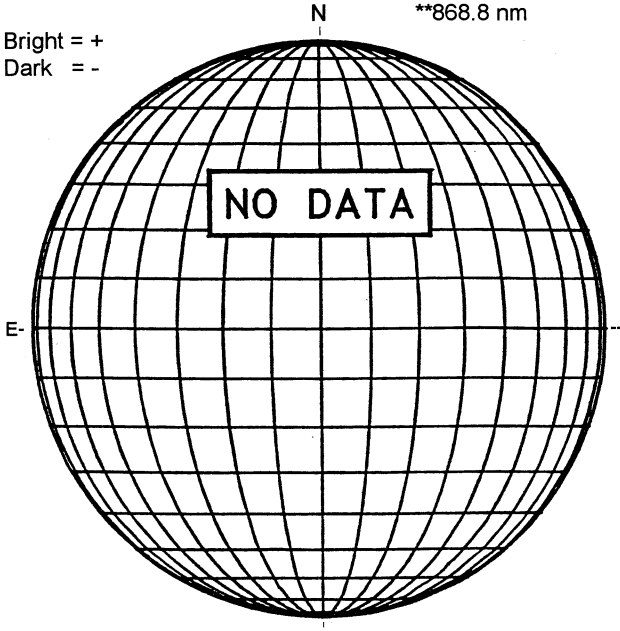
LOMNICKY PEAK CORONA (1.04 Radii)----



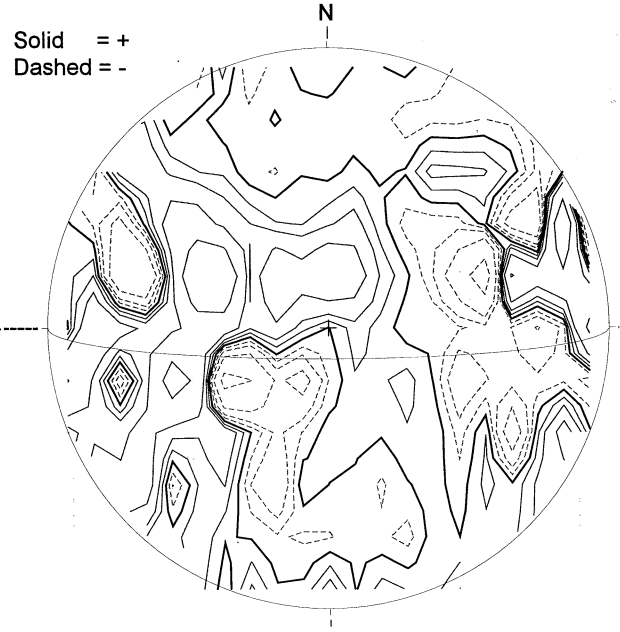

63
Aug 01

# AUGUST 9, 2001 ( P= 13.89, Bo = 6.32, Lo = 192.53)

## KITT PEAK MAGNETOGRAM

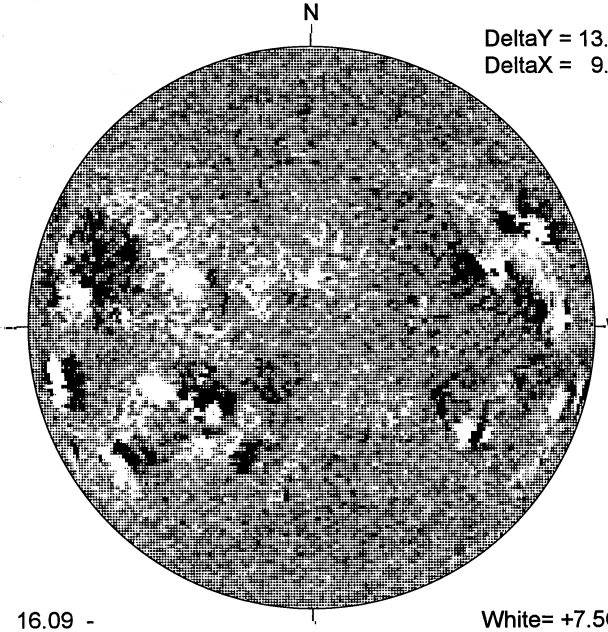



## STANFORD MAGNETOGRAM




1806 UT

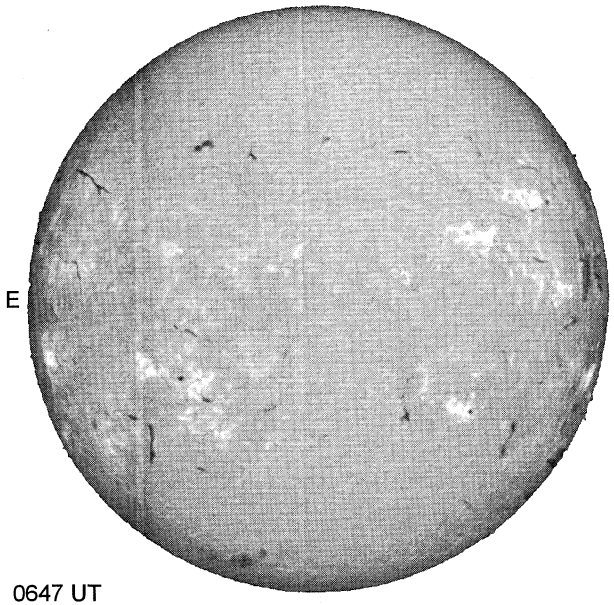
## MT. WILSON MAGNETOGRAM




16.09 -
17.01 UT

White= +7.5G
Black = -7.5G

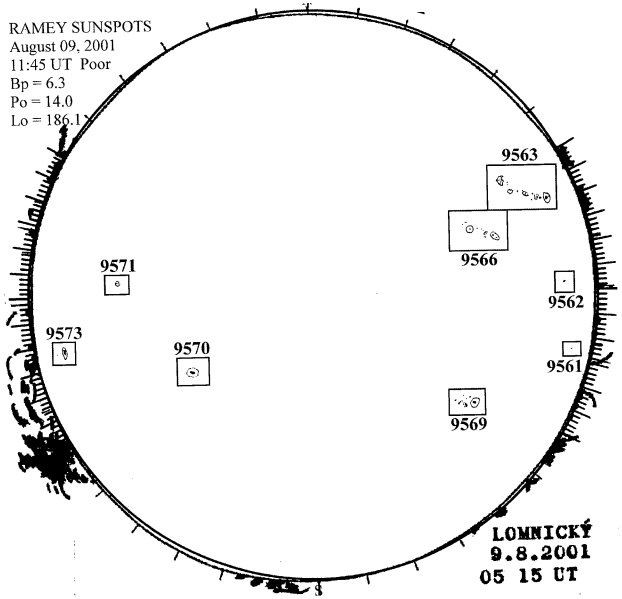
## MEUDON H-ALPHA




0647 UT

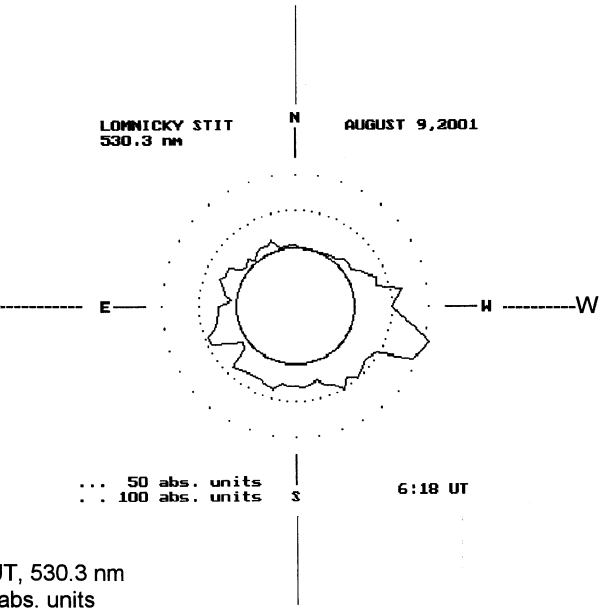
S

## RAMEY SUNSPOTS




1145 UT
0515 UT LOMN Prom S

## LOMNICKY PEAK CORONA (1.04 Radii)----

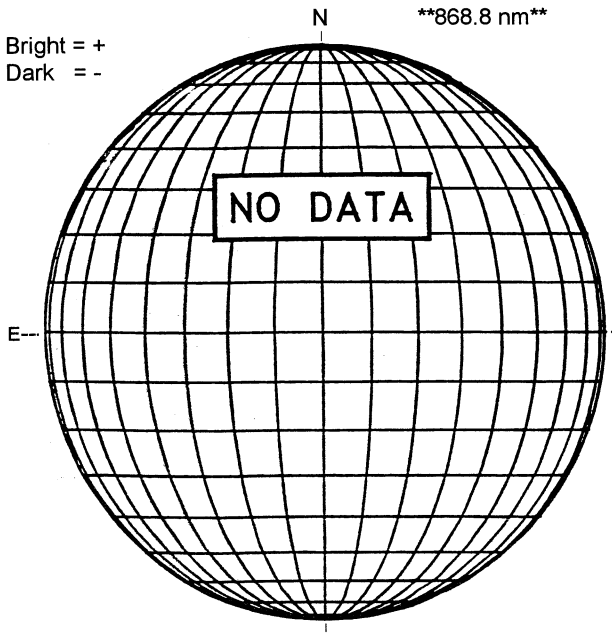



0618 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

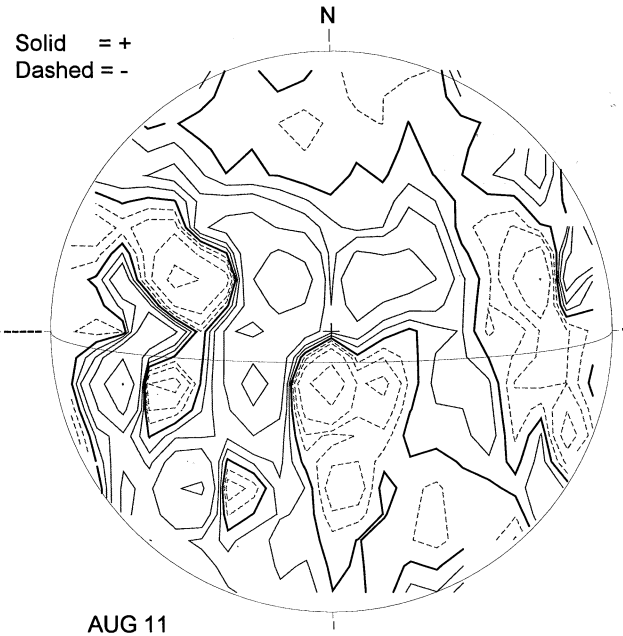
S

**AUGUST 10, 2001 ( P= 14.26, Bo = 6.38 Lo = 179.31)**

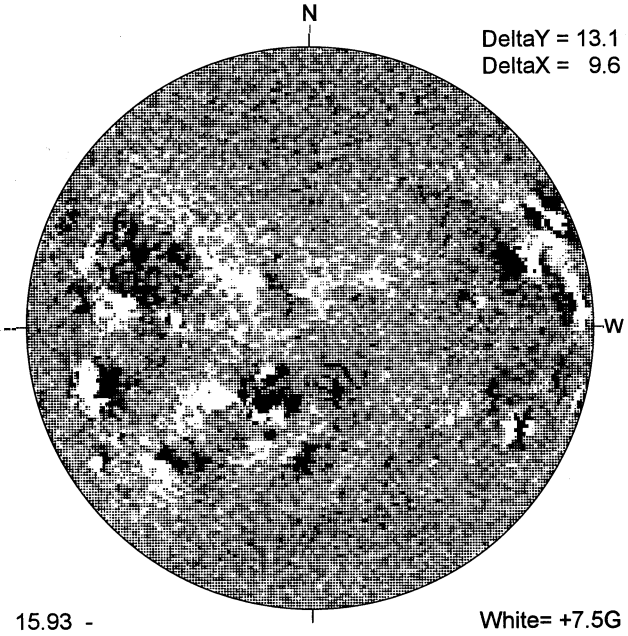
KITT PEAK MAGNETOGRAM



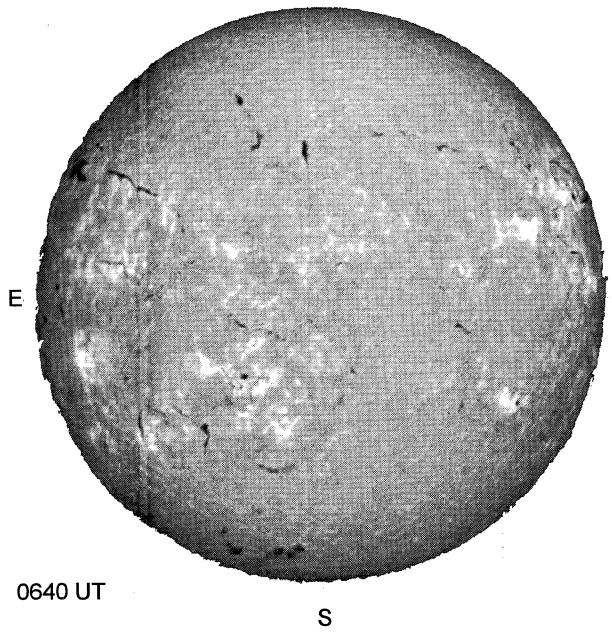

STANFORD MAGNETOGRAM



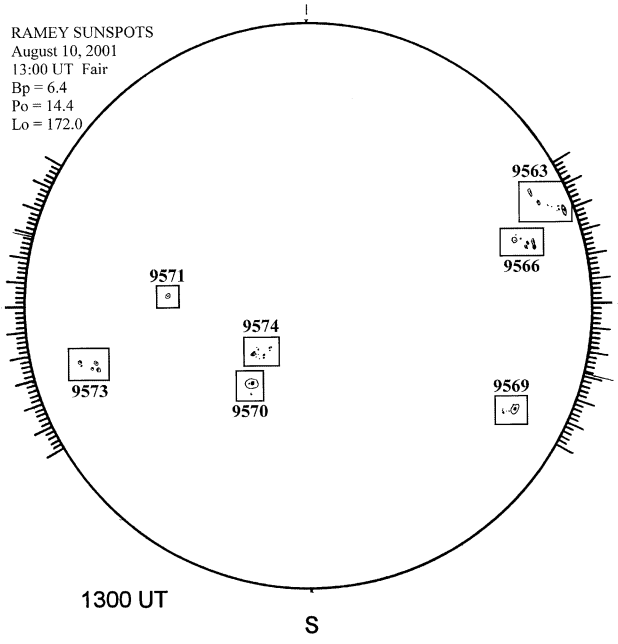

MT. WILSON MAGNETOGRAM



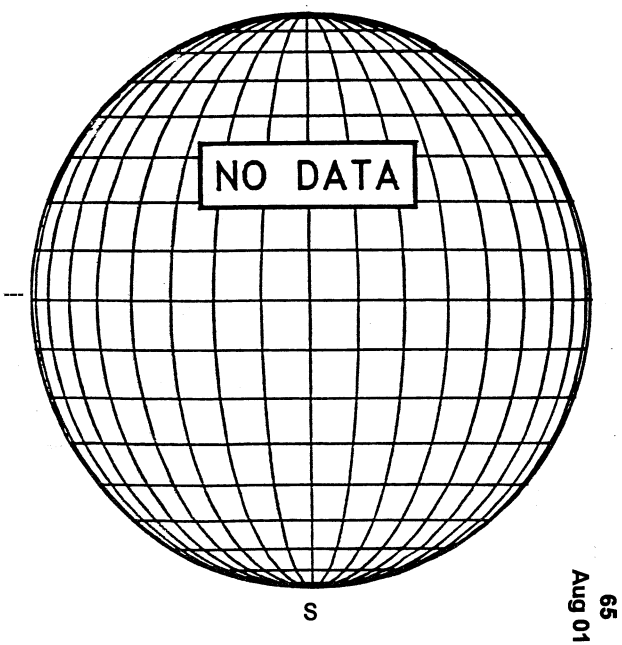

MEUDON H-ALPHA




RAMEY SUNSPOTS

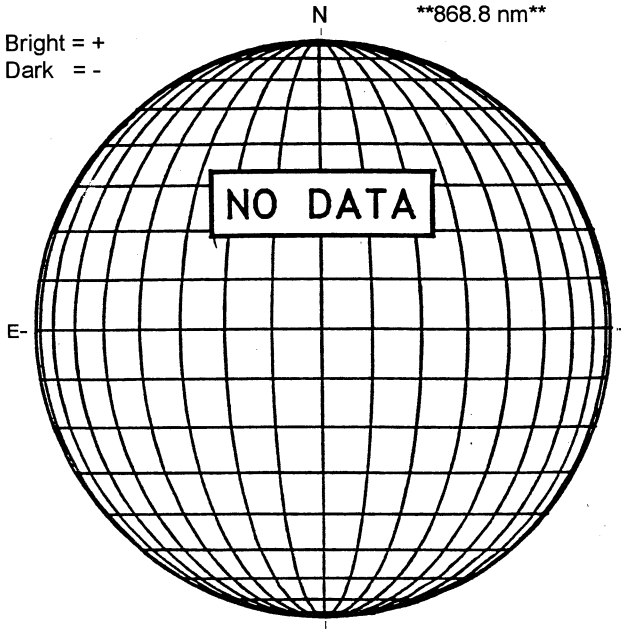



SACRAMENTO PEAK CORONA (1.15 Radii)

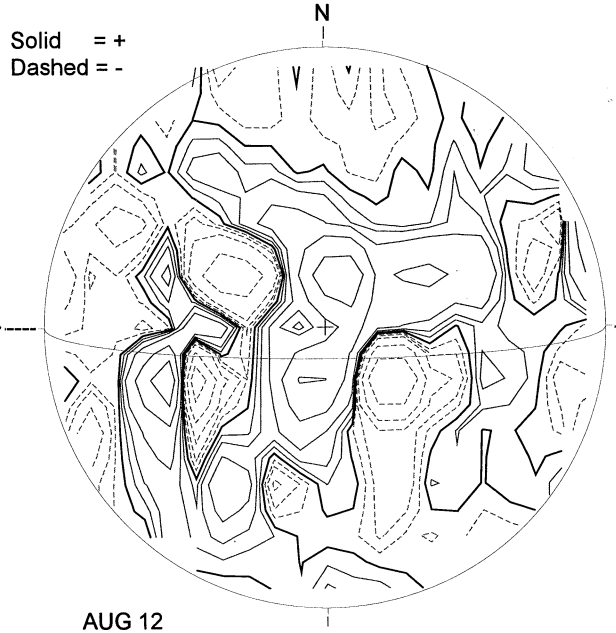


# AUGUST 11, 2001 ( P= 14.62, Bo = 6.44, Lo = 166.09)

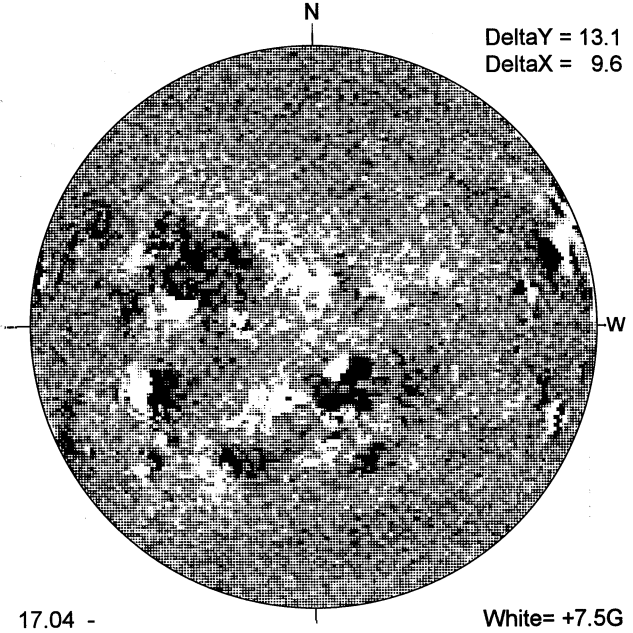
## KITT PEAK MAGNETOGRAM



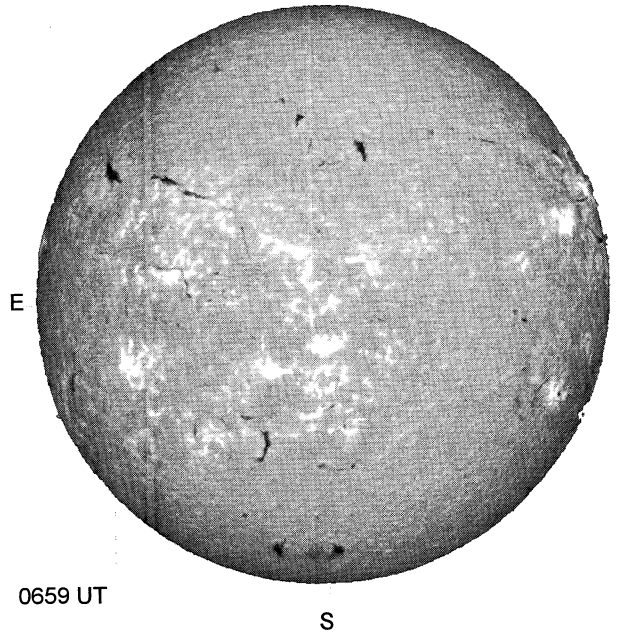

## STANFORD MAGNETOGRAM



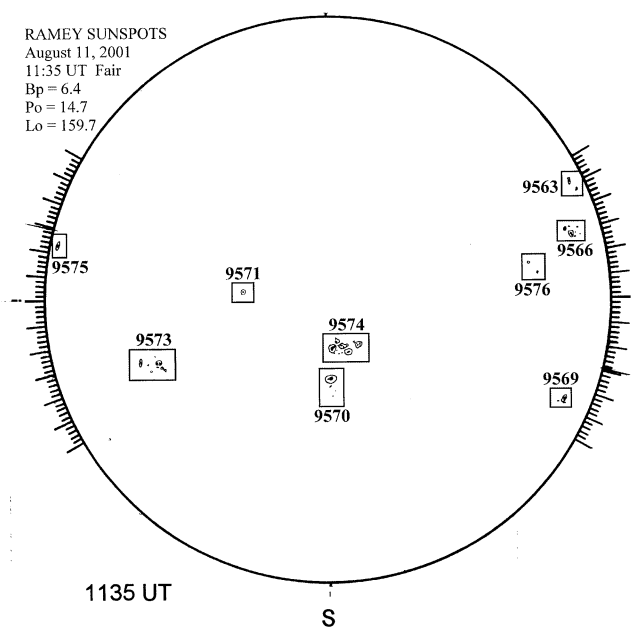

## MT. WILSON MAGNETOGRAM



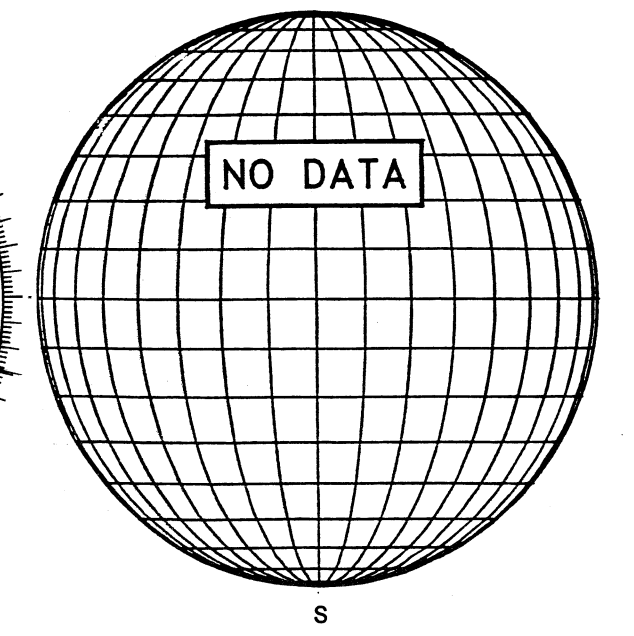

## MEUDON H-ALPHA




## RAMEY SUNSPOTS

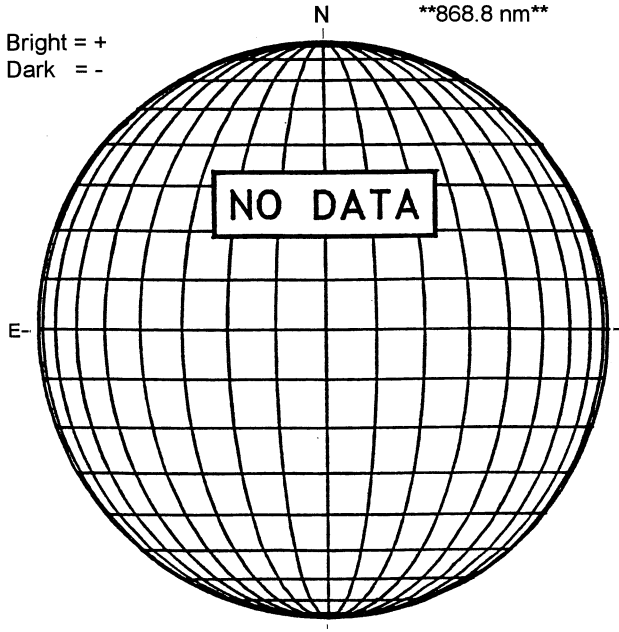



## SACRAMENTO PEAK CORONA (1.15 Radii)

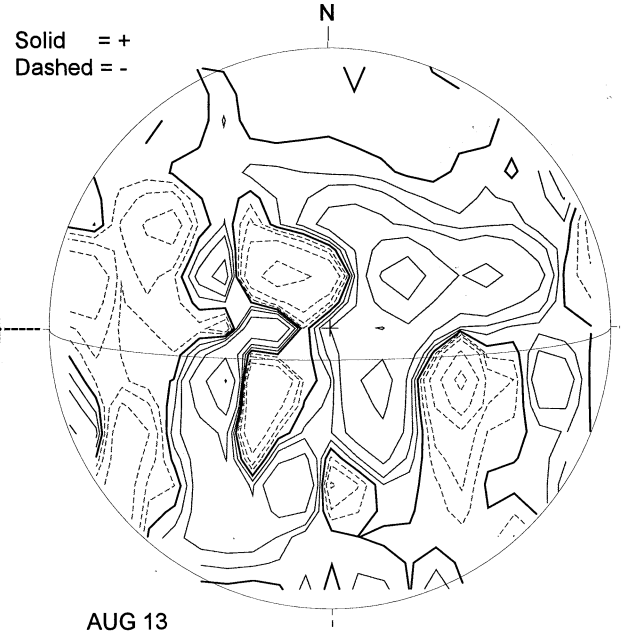


**AUGUST 12, 2001 ( P= 14.97, Bo = 6.49, Lo = 152.87)**

KITT PEAK MAGNETOGRAM

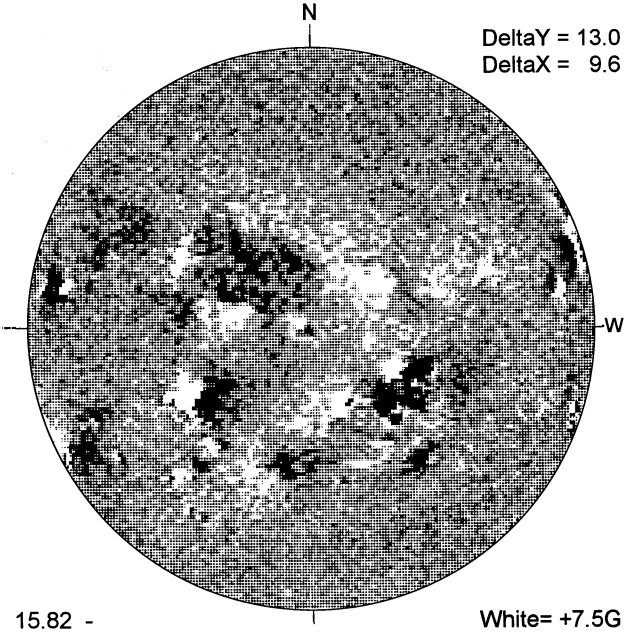



STANFORD MAGNETOGRAM




AUG 13
0015 UT

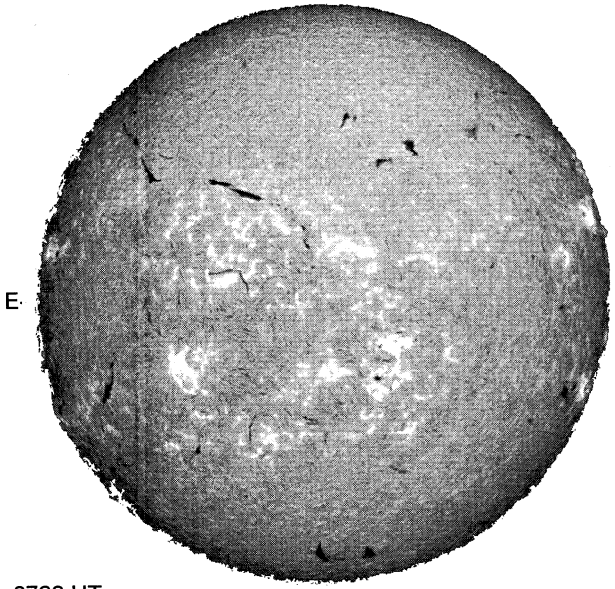
MT. WILSON MAGNETOGRAM




15.82 -
16.74 UT

White= +7.5G
Black = -7.5G

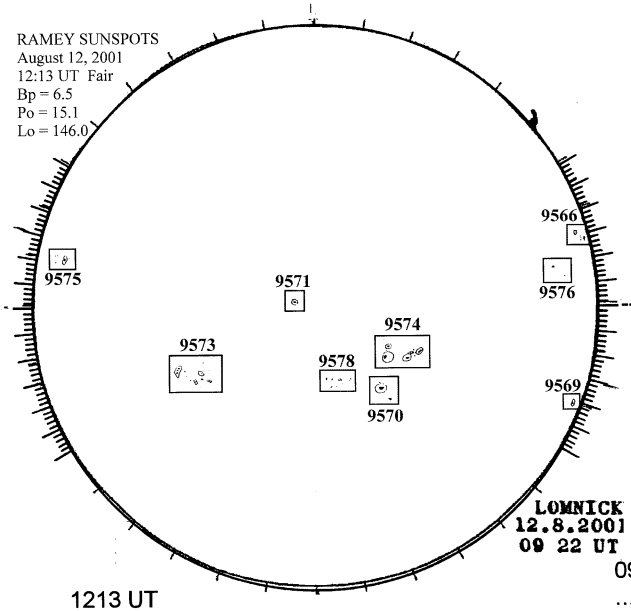
---- MEUDON H-ALPHA




0720 UT

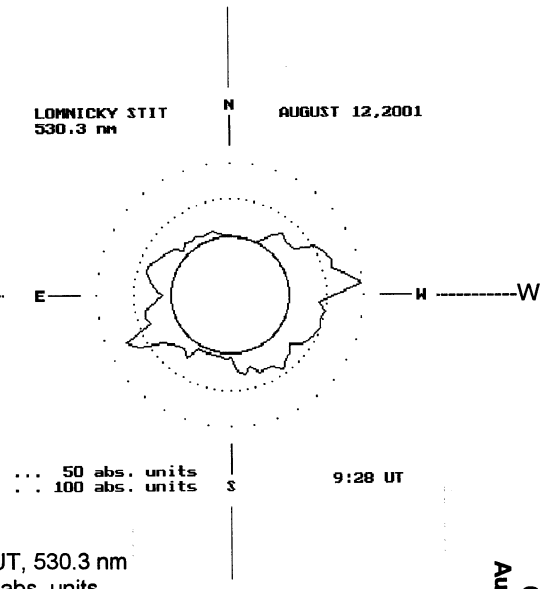
S

RAMEY SUNSPOTS




1213 UT
0922 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)----



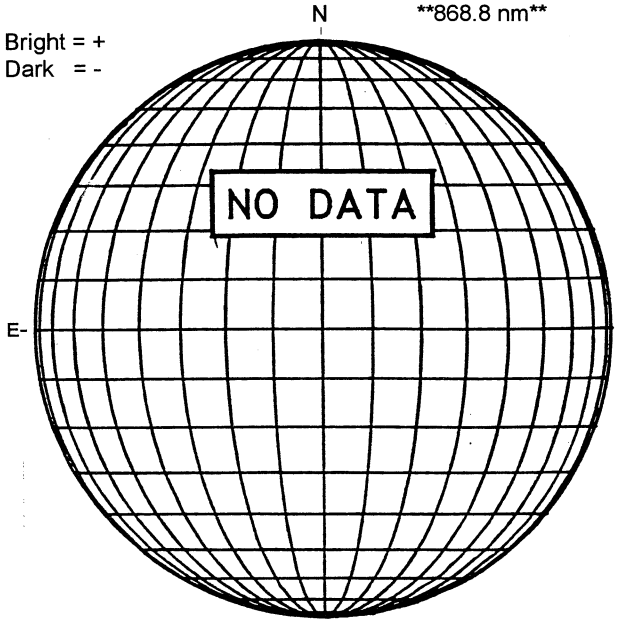

0928 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

S

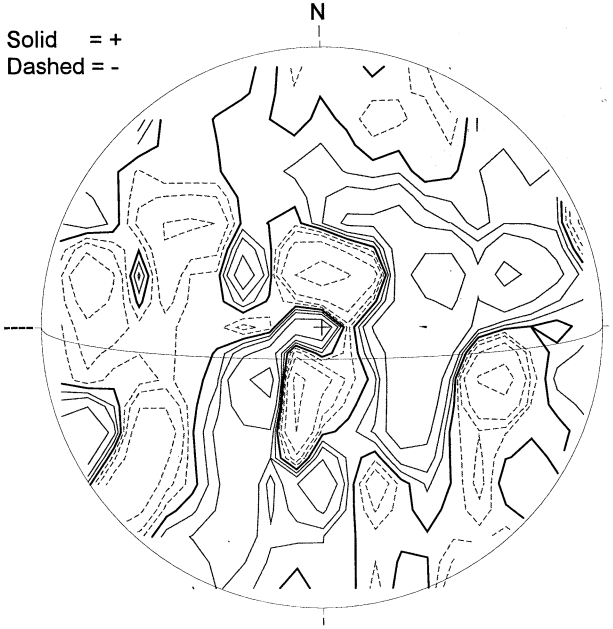
67
Aug 01

# AUGUST 13, 2001 ( P= 15.32, Bo = 6.55, Lo = 139.65)

## KITT PEAK MAGNETOGRAM

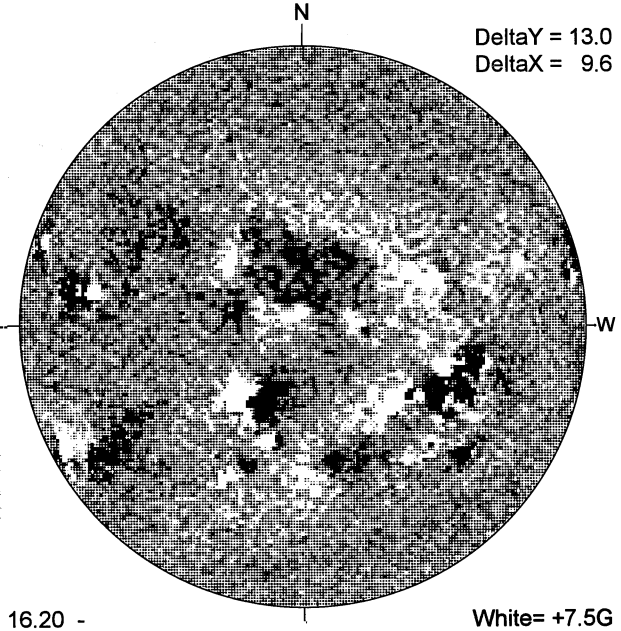



## STANFORD MAGNETOGRAM




1745 UT

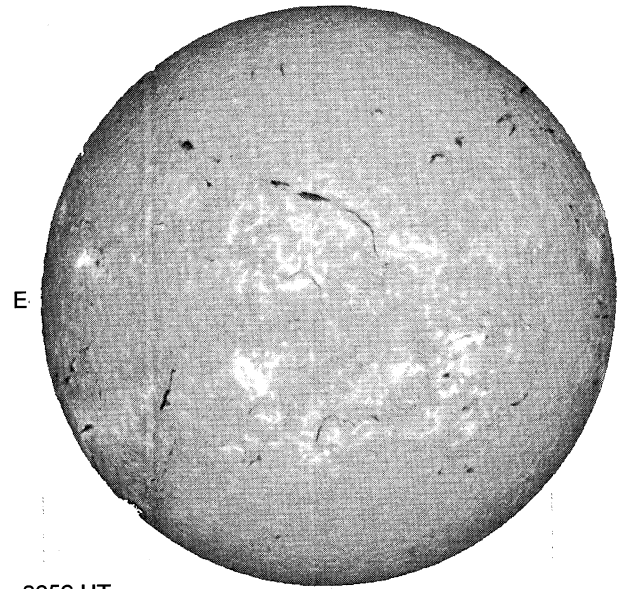
## MT. WILSON MAGNETOGRAM




16.20 -
17.13 UT

White= +7.5G
Black = -7.5G

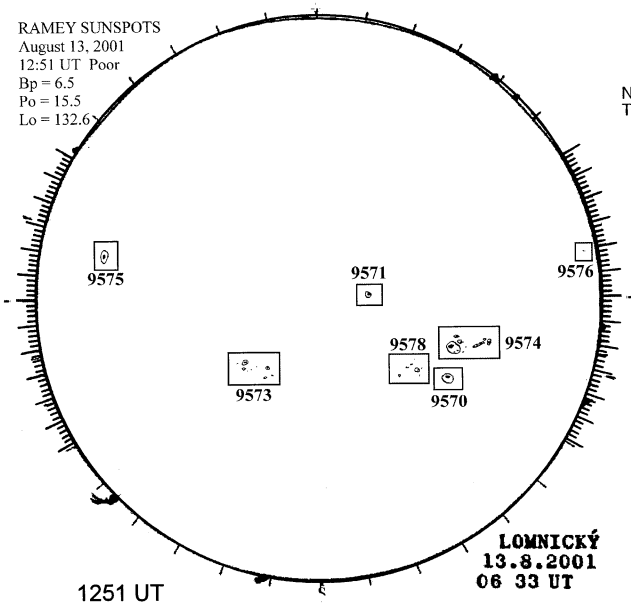
## MEUDON H-ALPHA




0656 UT

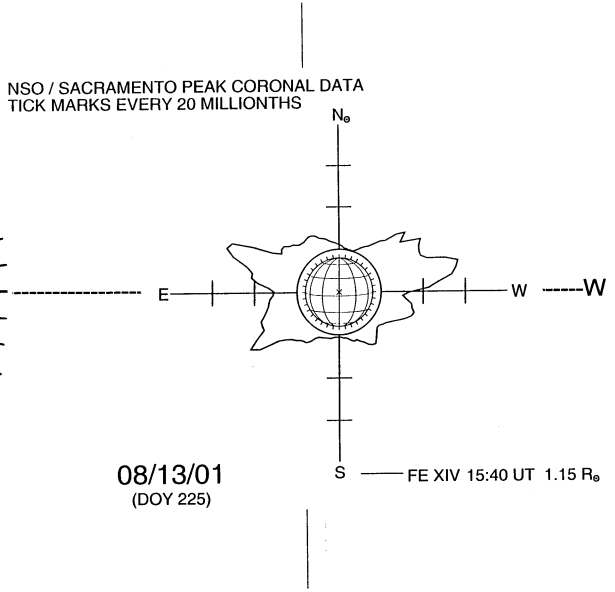
S

## RAMEY SUNSPOT




1251 UT
0633 UT LOMN Prom S

## SACRAMENTO PEAK CORONA (1.15 Radii)----

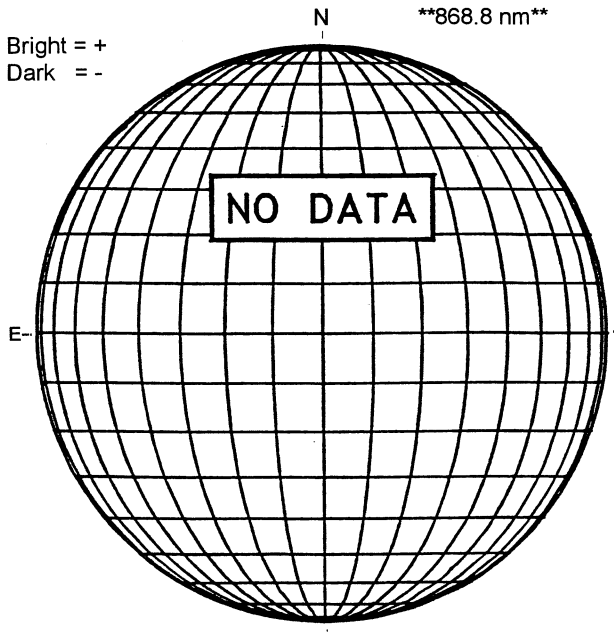



08/13/01
(DOY 225)

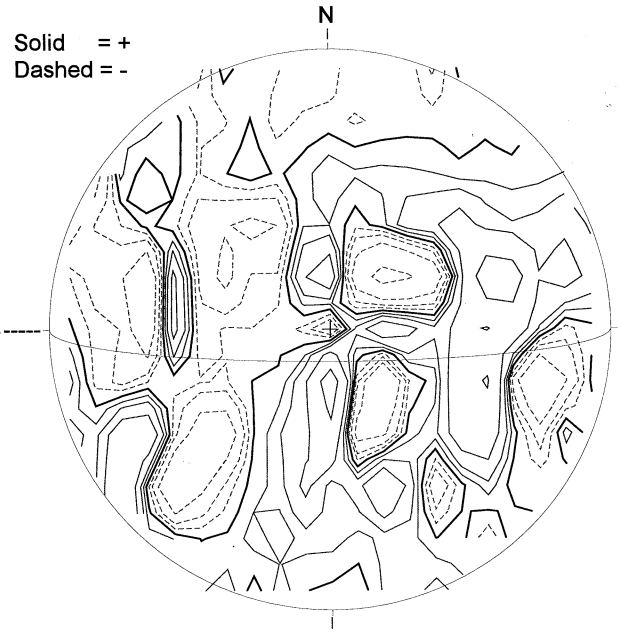
S

**AUGUST 14, 2001 ( P= 15.67, Bo = 6.60, Lo = 126.43)**

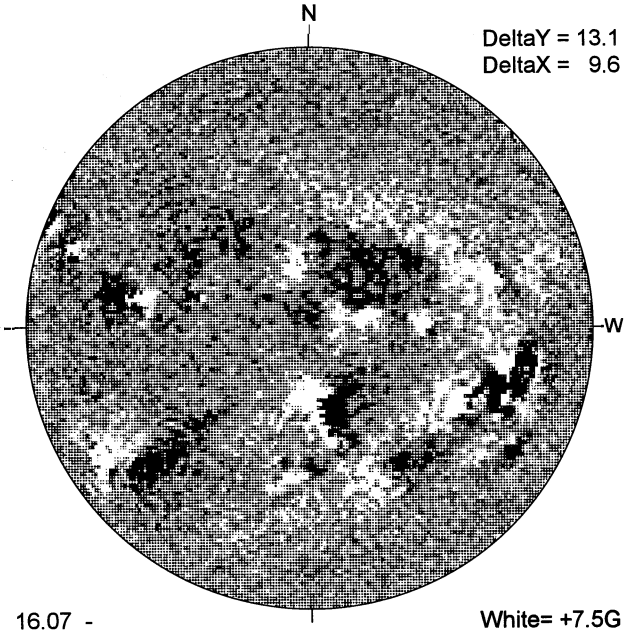
KITT PEAK MAGNETOGRAM



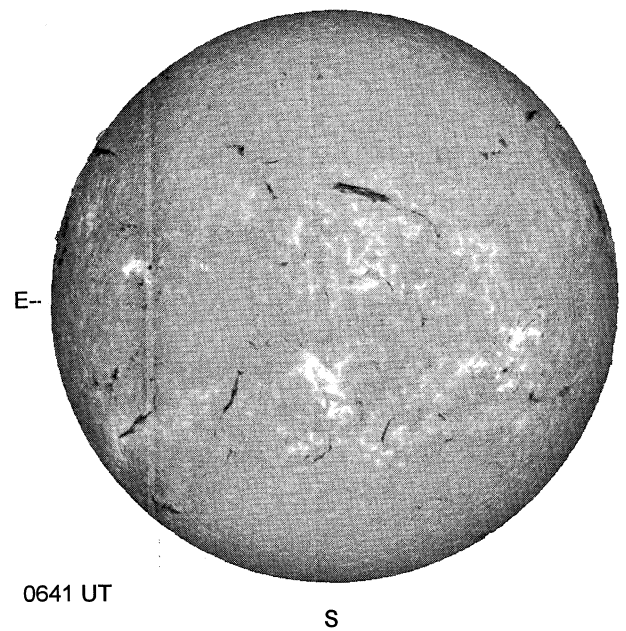

STANFORD MAGNETOGRAM



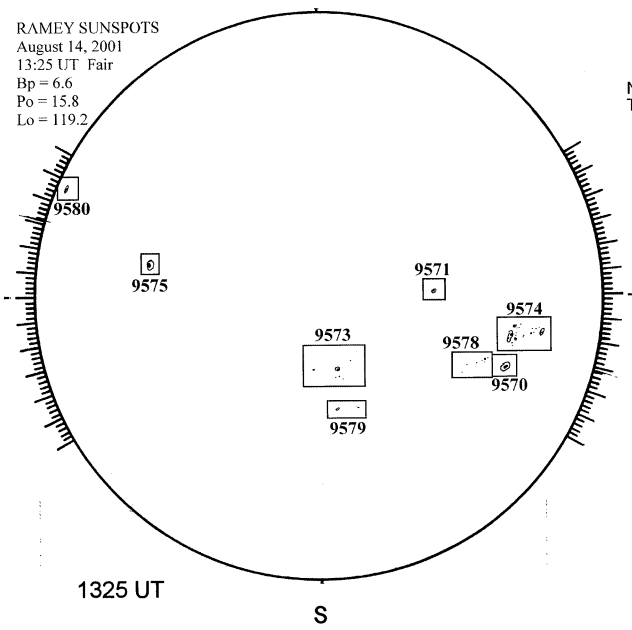

MT. WILSON MAGNETOGRAM



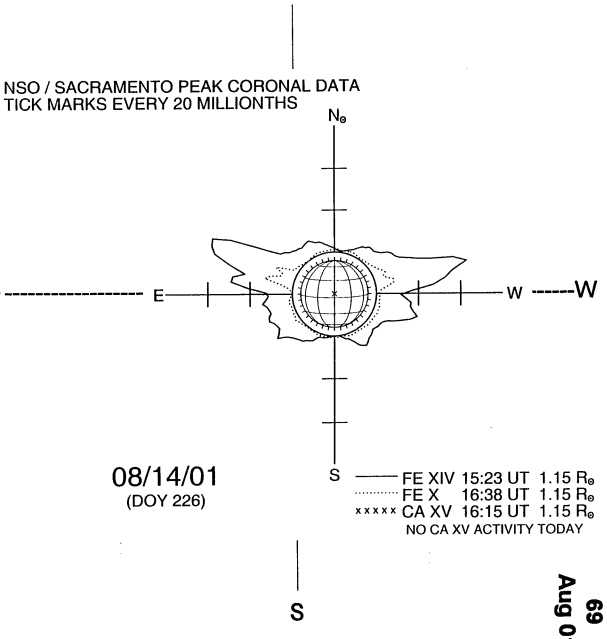

MEUDON H-ALPHA




RAMEY SUNSPOT




SACRAMENTO PEAK CORONA (1.15 Radii)----

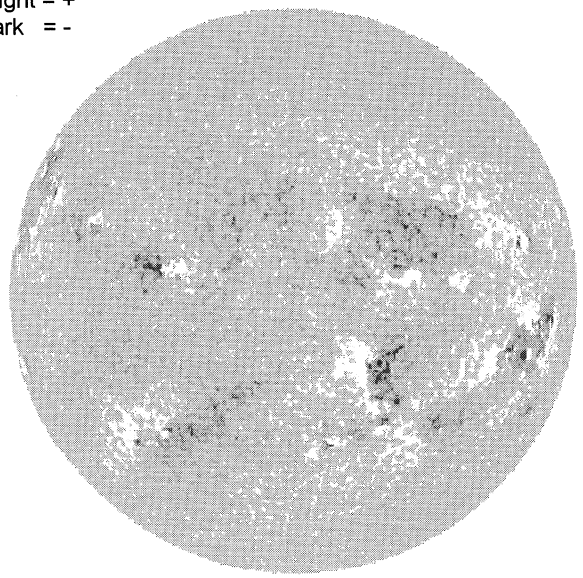


# AUGUST 15, 2001 ( P= 16.01, Bo = 6.65, Lo = 113.21)

## KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



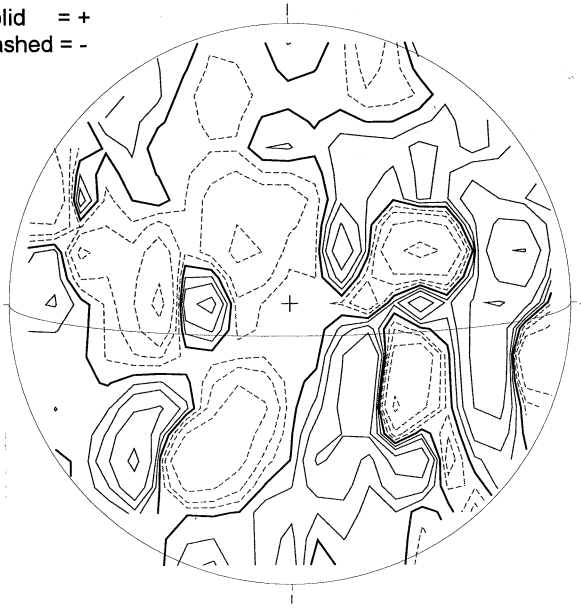
E-

1458 UT

## STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

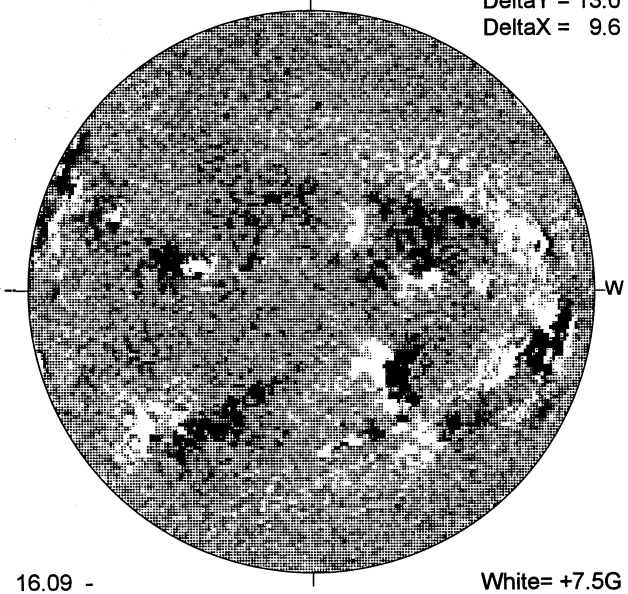


2318 UT

## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

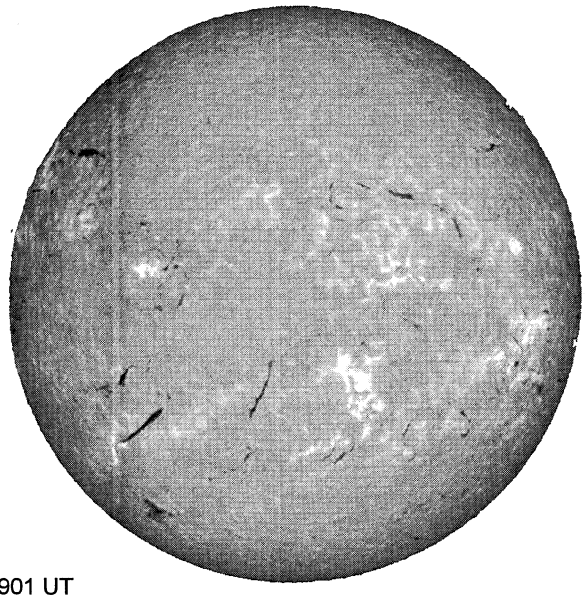


-W

16.09 -
17.02 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

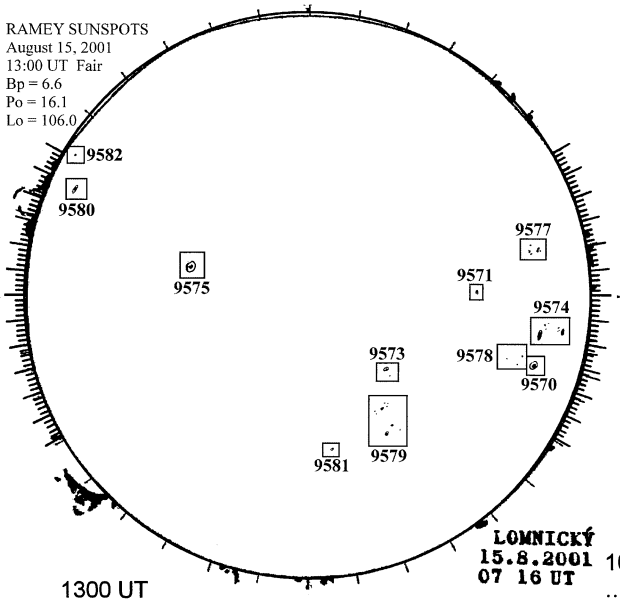


E-

0901 UT

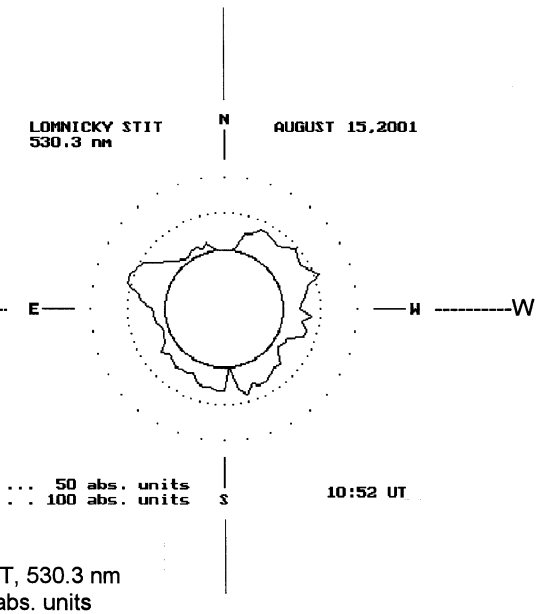
S

## RAMEY SUNSPOT




1300 UT
0716 UT LOMN Prom S

## LOMNICKY PEAK CORONA (1.04 Radii)

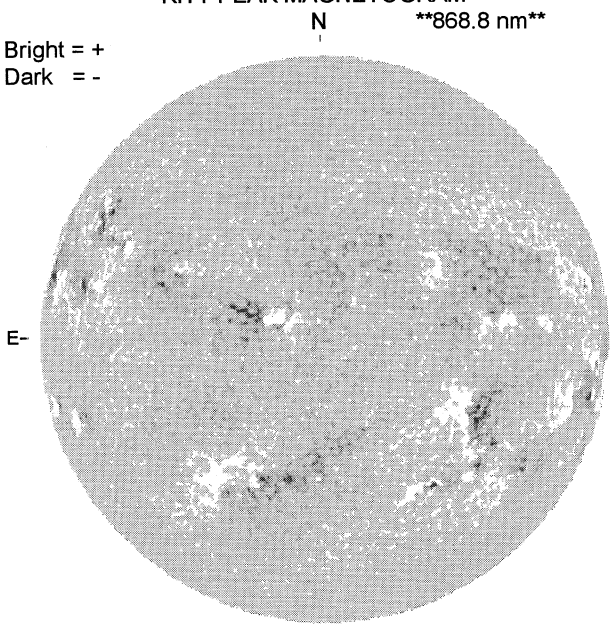



1052 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

S

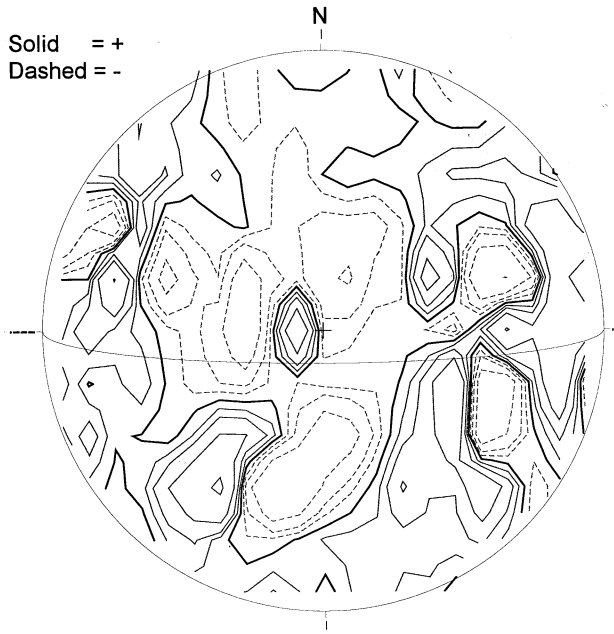
**AUGUST 16, 2001 ( P= 16.35, Bo = 6.69, Lo = 99.99)**

KITT PEAK MAGNETOGRAM



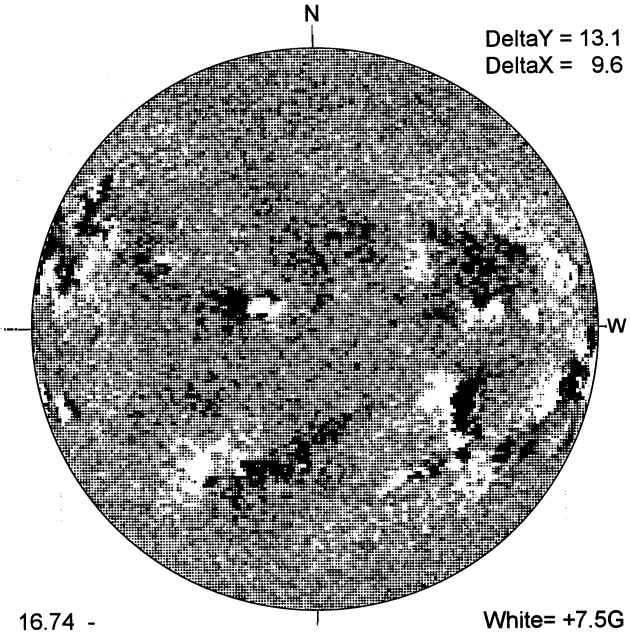

1856 UT

STANFORD MAGNETOGRAM




2138 UT

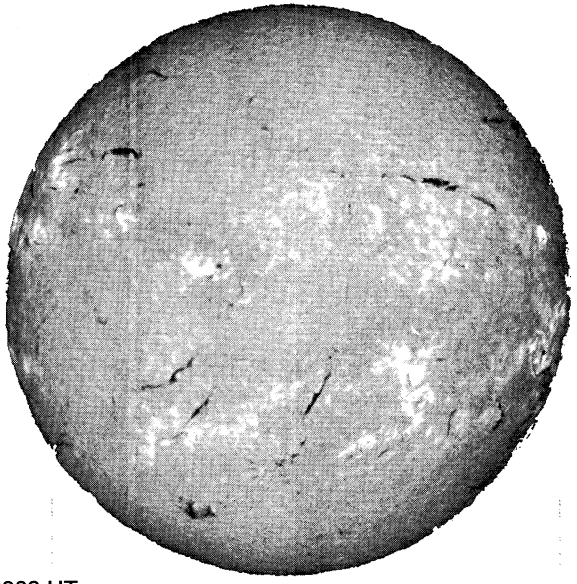
MT. WILSON MAGNETOGRAM




16.74 -
17.66 UT

White= +7.5G
Black = -7.5G

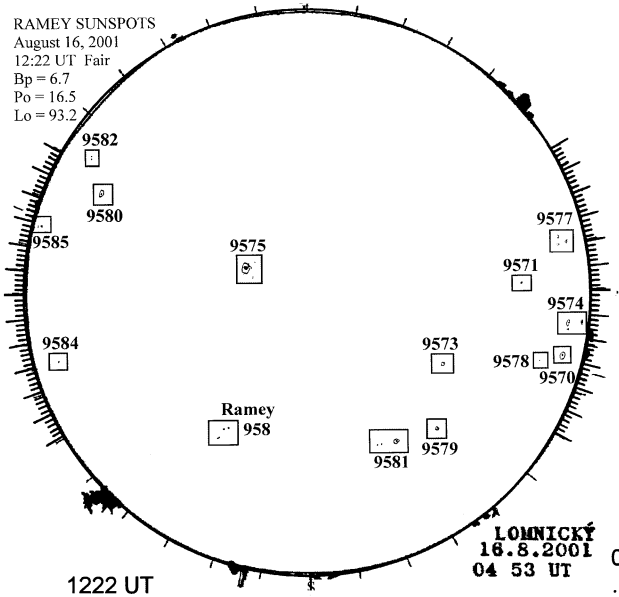
MEUDON H-ALPHA




0903 UT

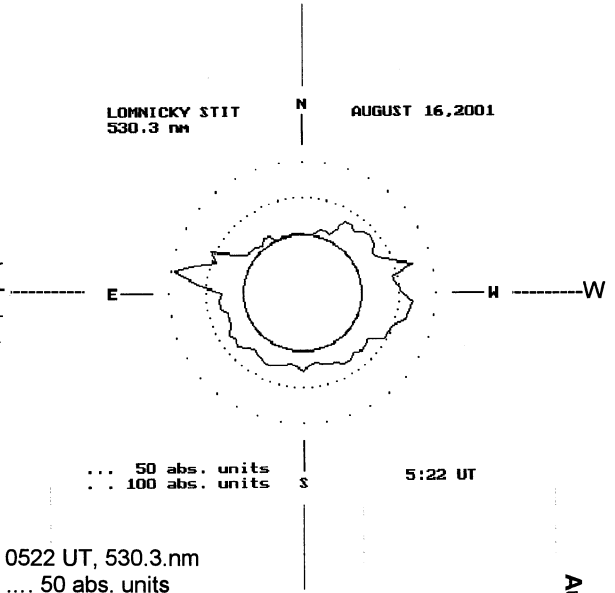
S

RAMEY SUNSPOT




1222 UT
0453 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)----




0522 UT, 530.3.nm
.... 50 abs. units
. . 100 abs. units

S

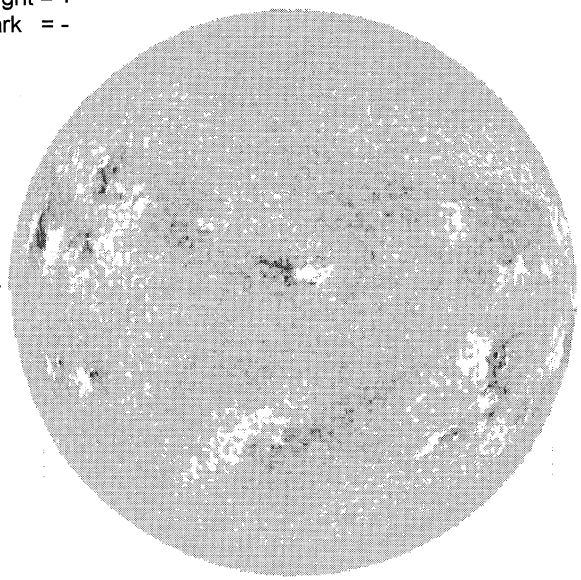
71
Aug 01

# AUGUST 17, 2001 ( P= 16.68, Bo = 6.74, Lo = 86.78)

## KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



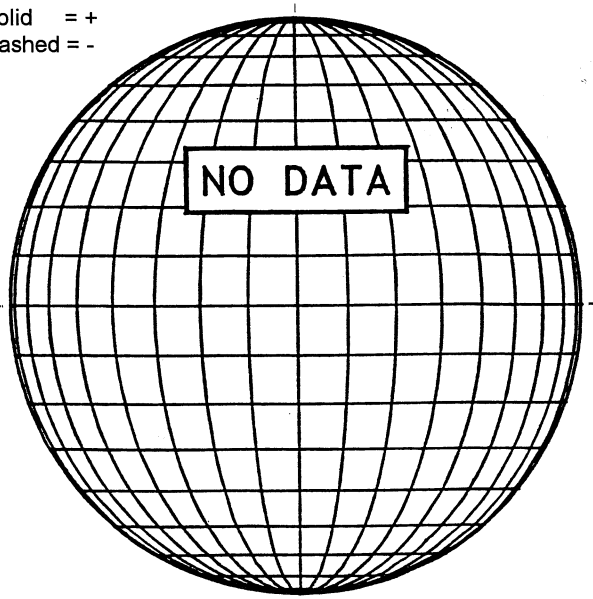
E--

1906 UT

## STANFORD MAGNETOGRAM

N

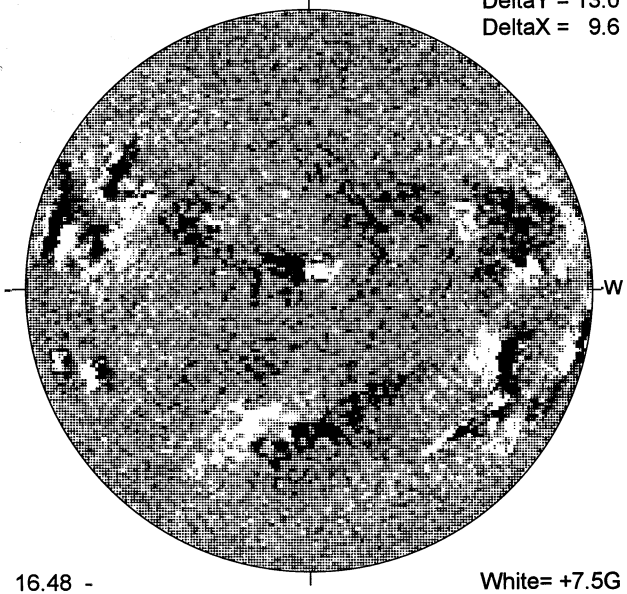
Solid = +
Dashed = -




## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6



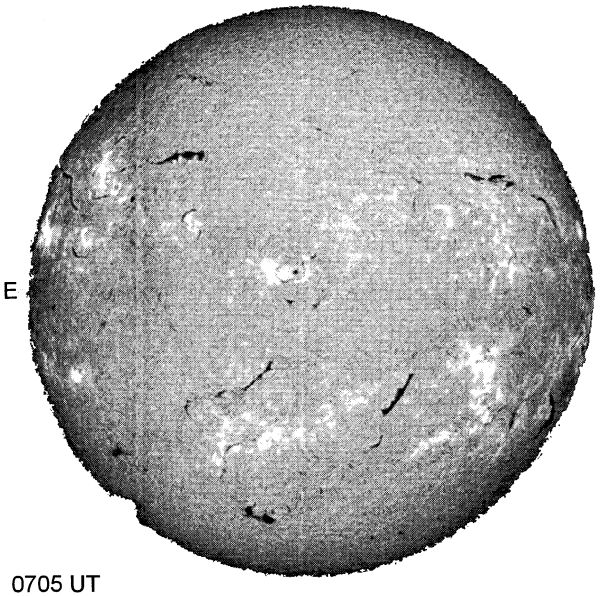
---W

16.48 -
17.41 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

-----



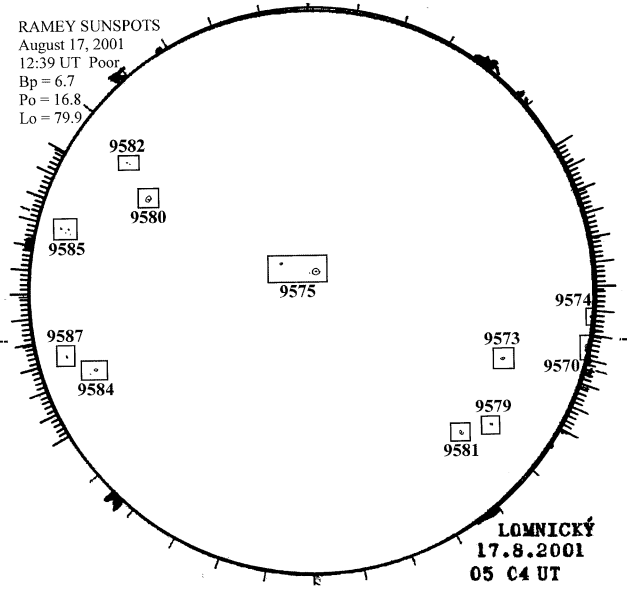
E

0705 UT

S

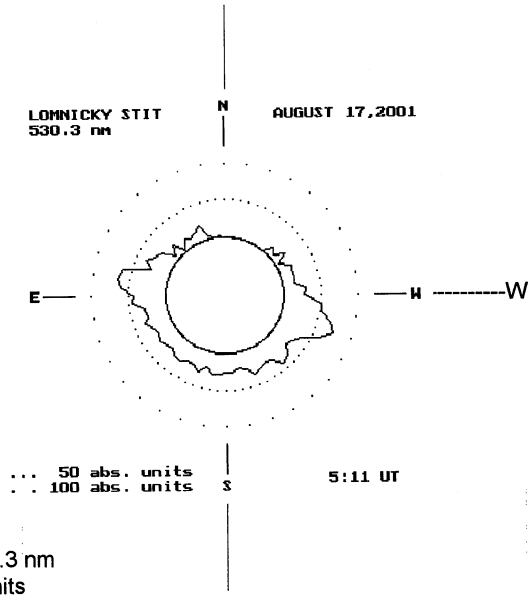
## RAMEY SUNSPOTS

August 17, 2001
12:39 UT Poor
Bp = 6.7
Po = 16.8
Lo = 79.9




1239 UT
0504 UT LOMN Prom S

## LOMNICKY PEAK CORONA (1.04 Radii)----

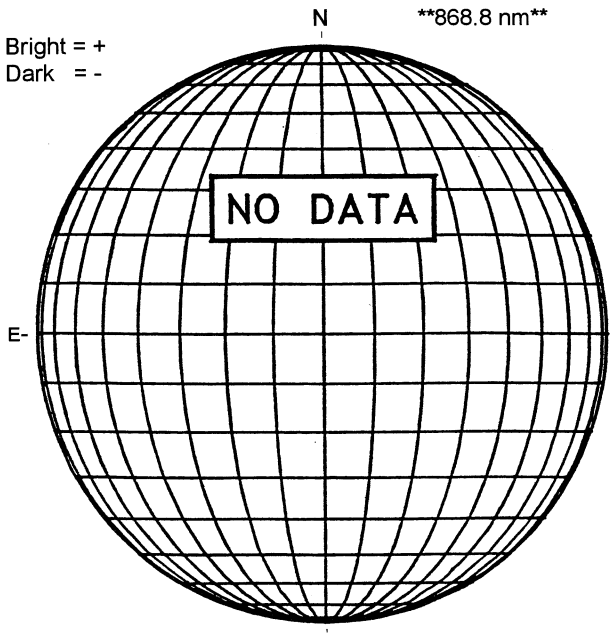



0511 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

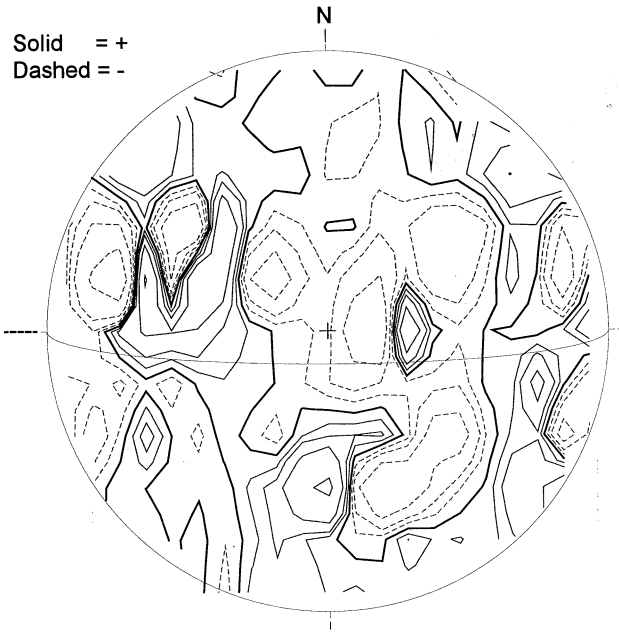
S

**AUGUST 18, 2001 ( P= 17.01, Bo = 6.78, Lo = 73.56)**

KITT PEAK MAGNETOGRAM

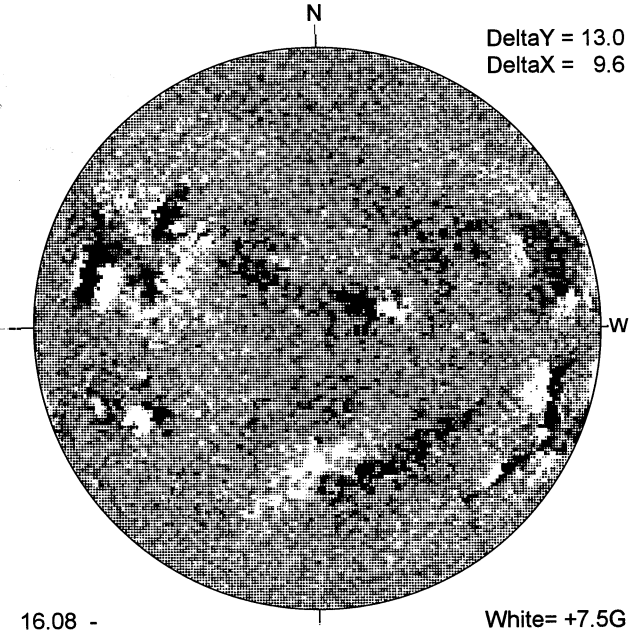



STANFORD MAGNETOGRAM




1858 UT

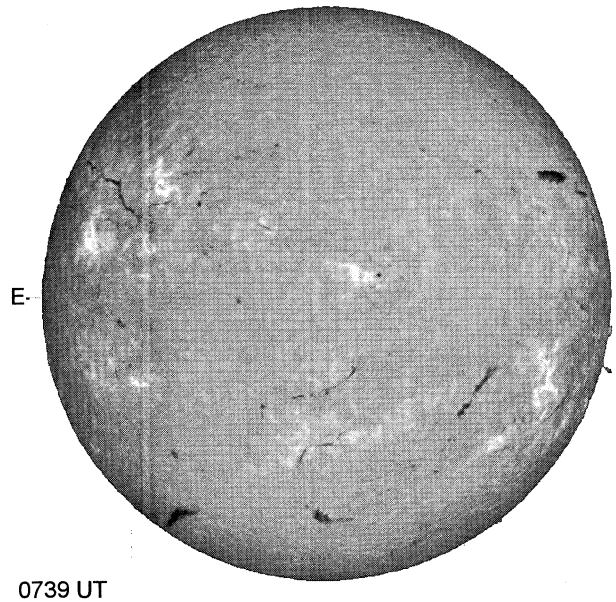
MT. WILSON MAGNETOGRAM




16.08 - 17.01 UT

White= +7.5G
Black = -7.5G

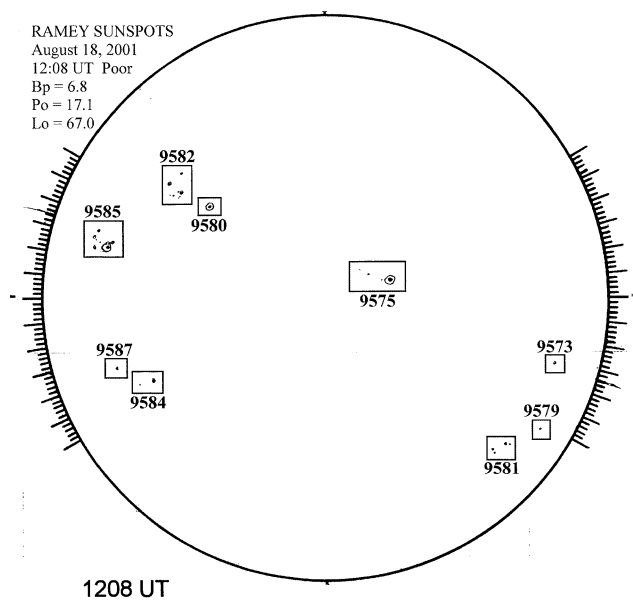
MEUDON H-ALPHA




0739 UT

S

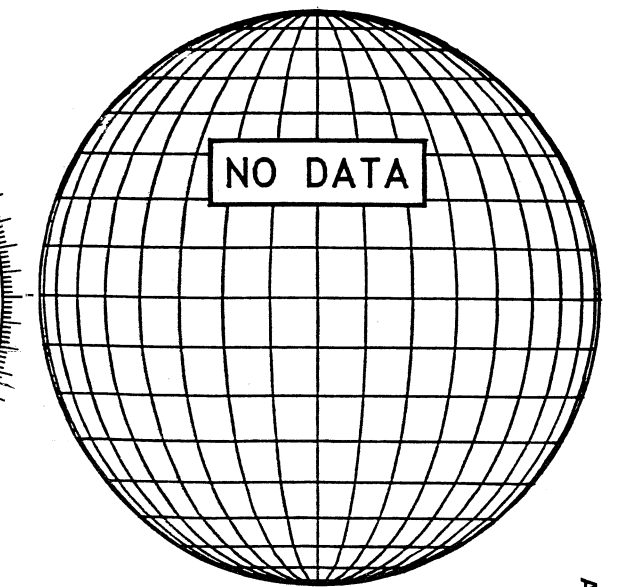
RAMEY SUNSPOT




1208 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----




S

73
Aug 01

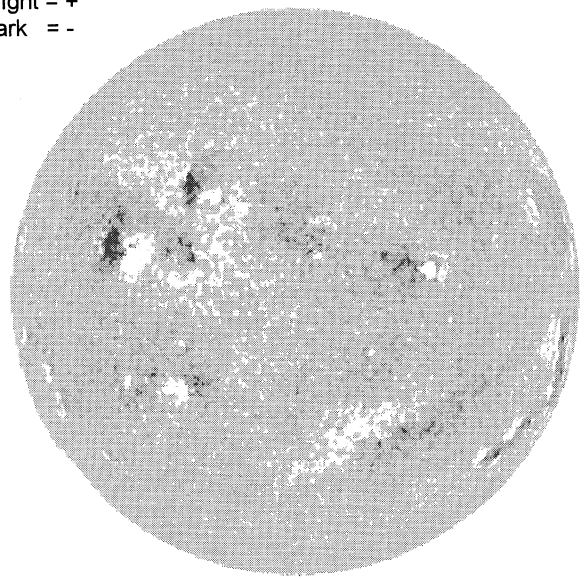
# AUGUST 19, 2001 ( P= 17.34, Bo = 6.83, Lo = 60.34)

## KITT PEAK MAGNETOGRAM

N

**868.8 nm**

Bright = +
Dark = -



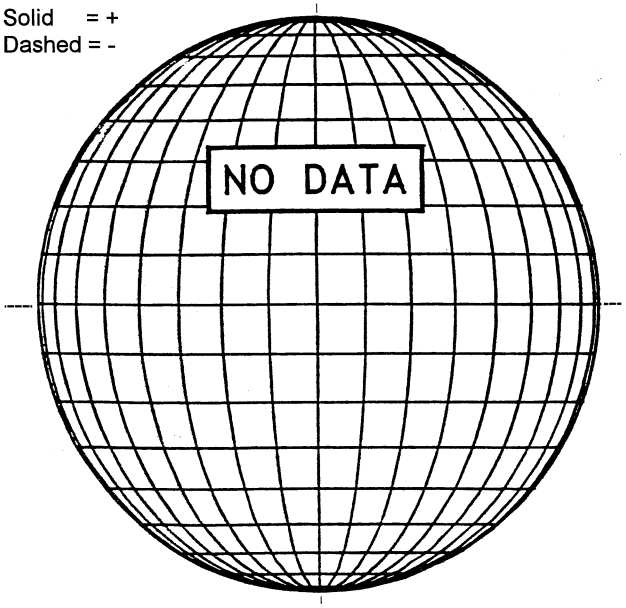
E-

1651 UT

## STANFORD MAGNETOGRAM

N

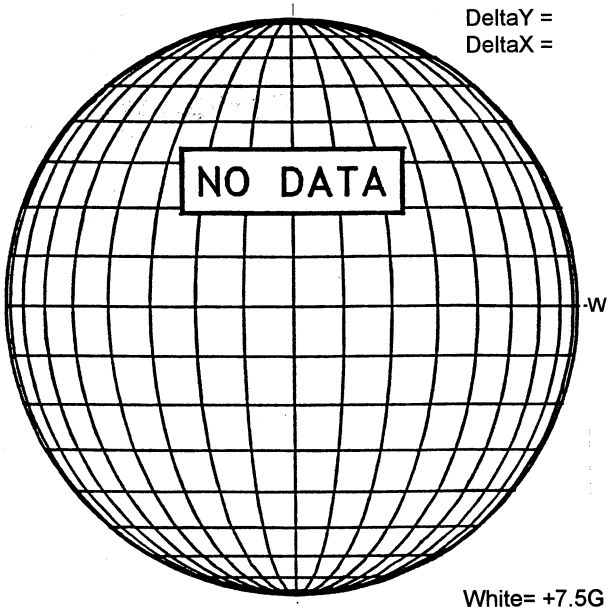
Solid = +
Dashed = -




## MT. WILSON MAGNETOGRAM

N

DeltaY =
DeltaX =

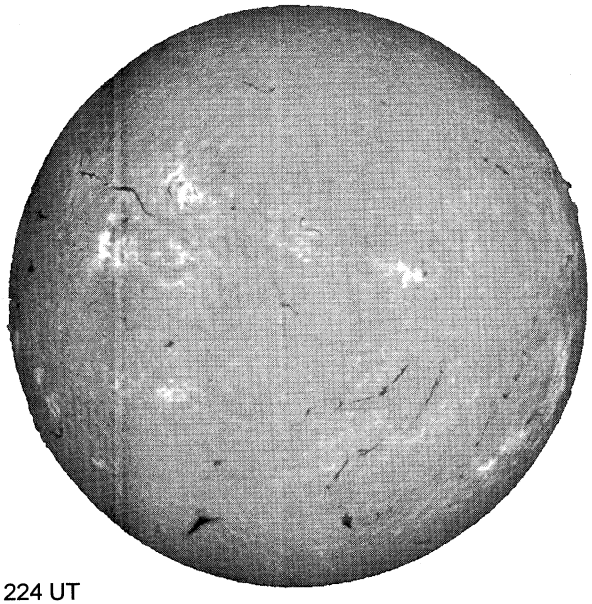



-W

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

-----



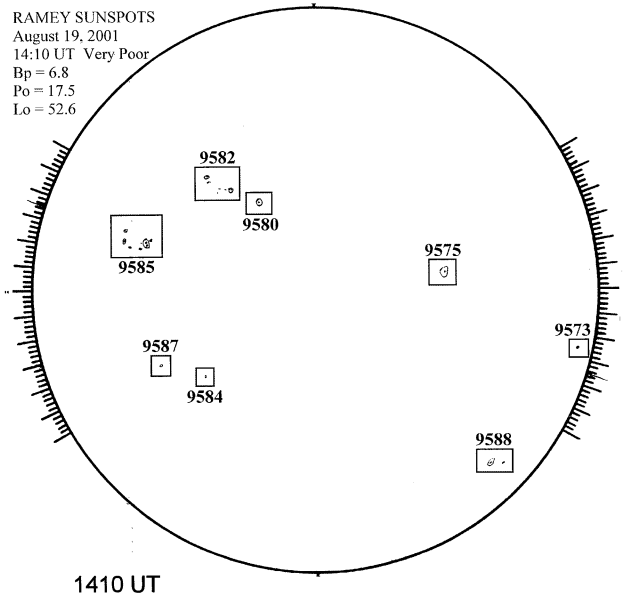
E

1224 UT

S

## RAMEY SUNSPOT

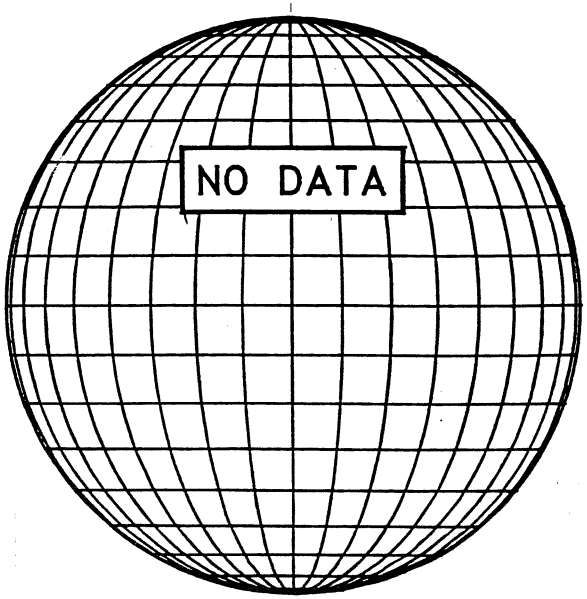
RAMEY SUNSPOTS
August 19, 2001
14:10 UT Very Poor
Bp = 6.8
Po = 17.5
Lo = 52.6




1410 UT

S

## SACRAMENTO PEAK CORONA (1.15 Radii)----



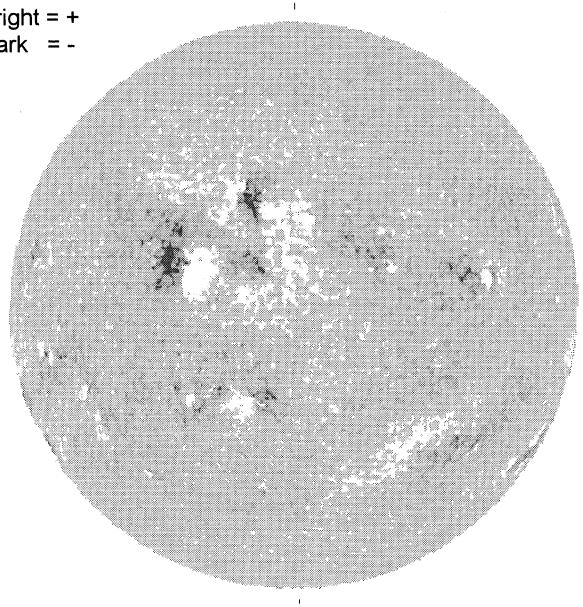

S

**AUGUST 20, 2001 ( P= 17.65, Bo = 6.87, Lo = 47.13)**

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



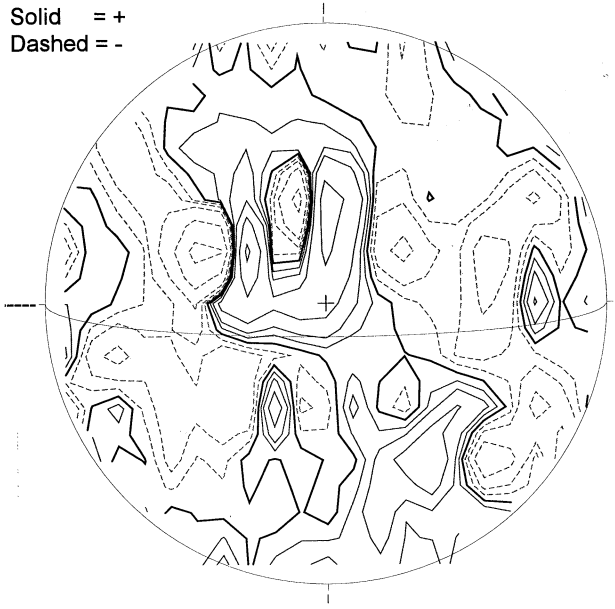
E

2013 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

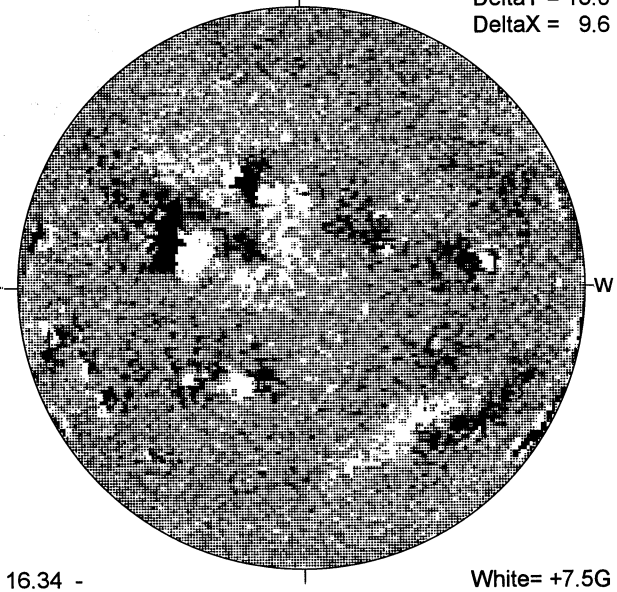


2212 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

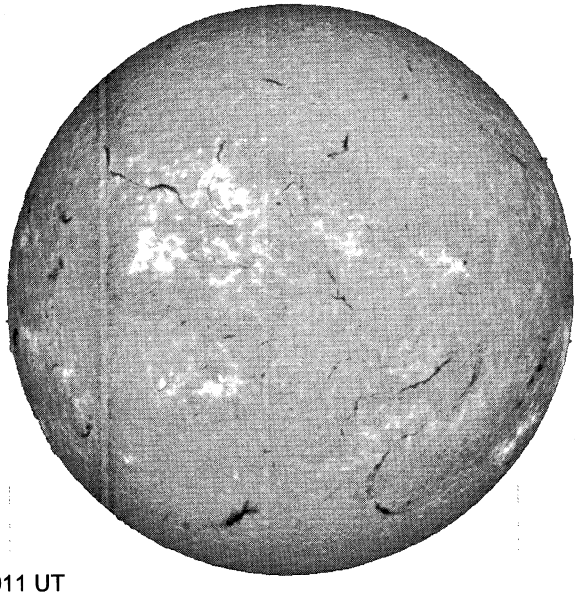


W

16.34 -
17.27 UT

White= +7.5G
Black = -7.5G

---- MEUDON H-ALPHA

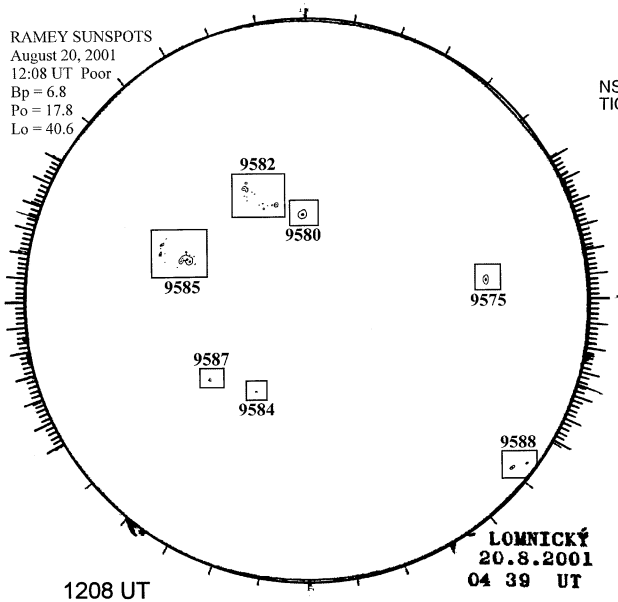


E

1011 UT

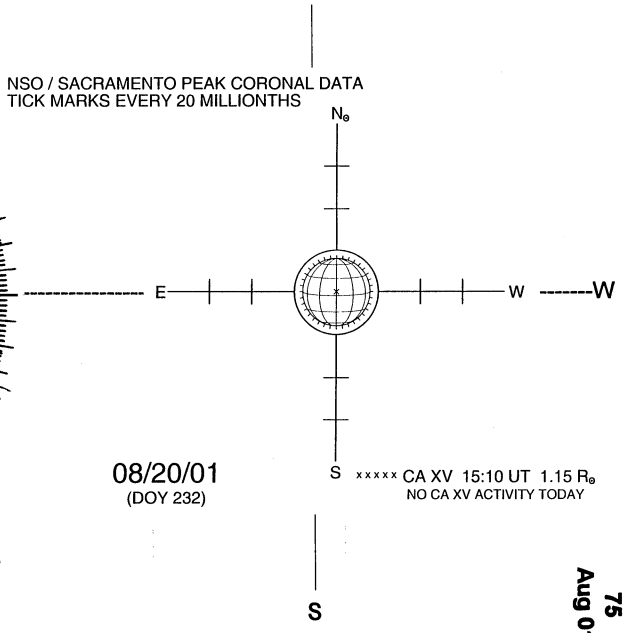
S

RAMEY SUNSPOT




1208 UT
0439 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----



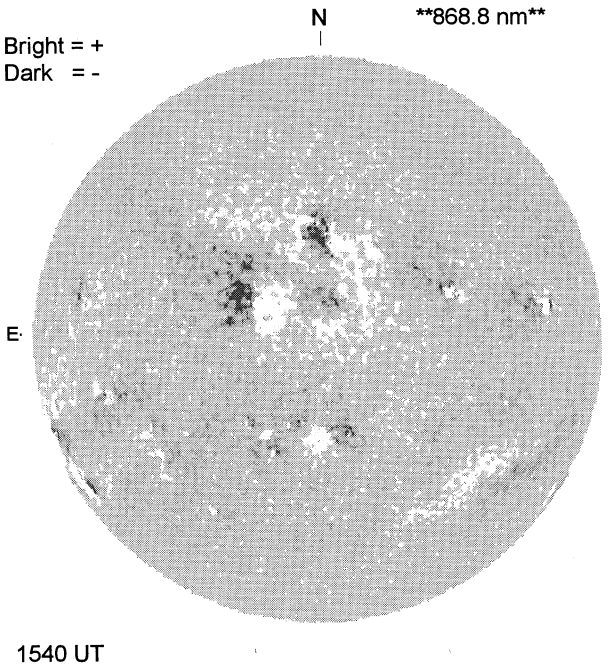

08/20/01
(DOY 232)

S

75
Aug 01

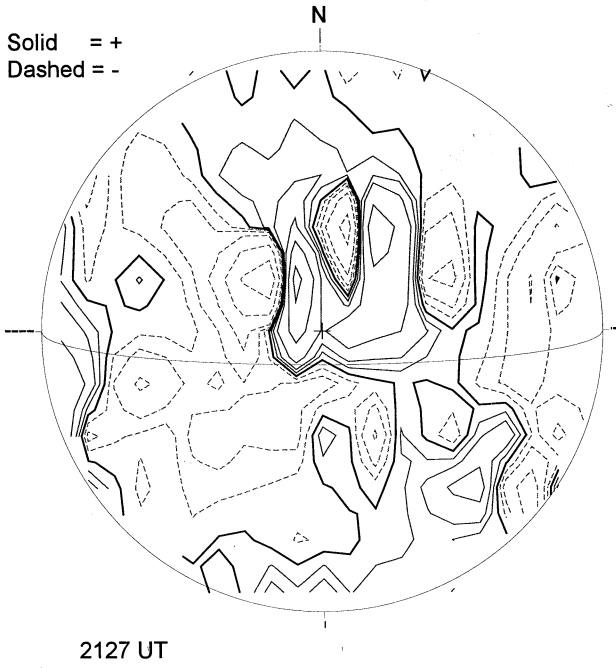
# AUGUST 21, 2001 ( P= 17.97, Bo = 6.91, Lo = 33.91)

## KITT PEAK MAGNETOGRAM



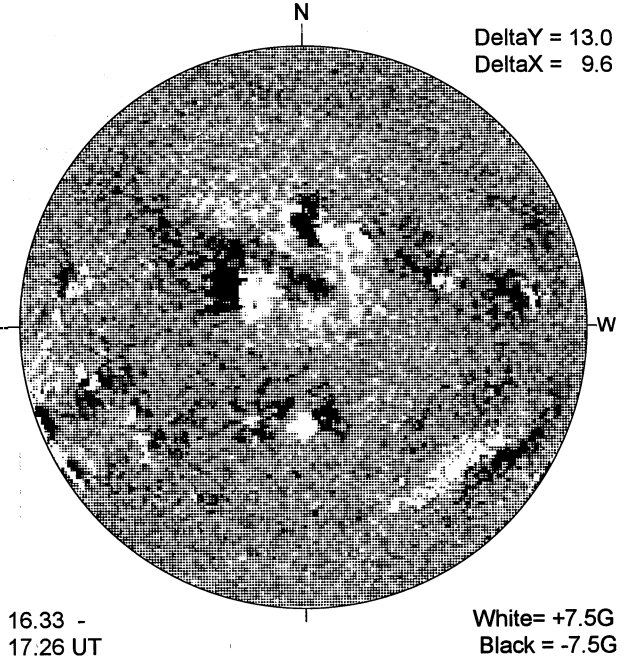

1540 UT

## STANFORD MAGNETOGRAM




2127 UT

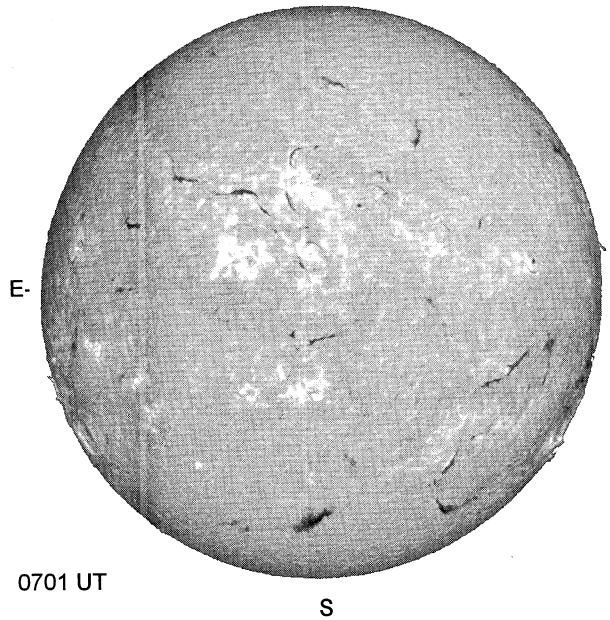
## MT. WILSON MAGNETOGRAM




16.33 -
17.26 UT

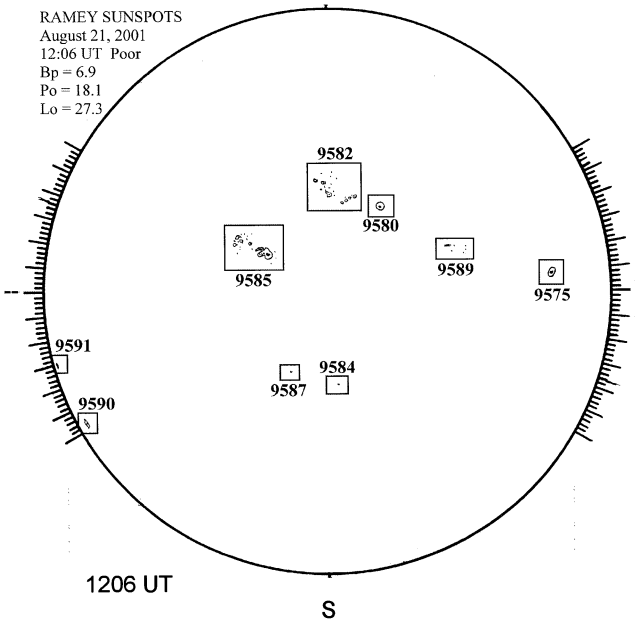
White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA



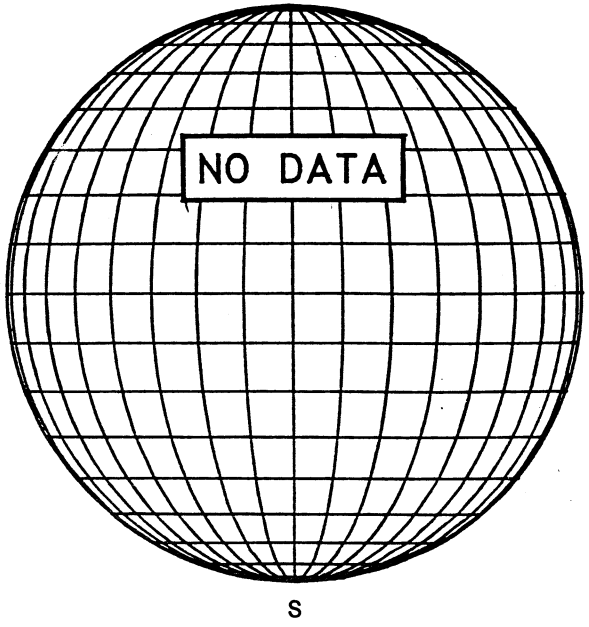

0701 UT

## RAMEY SUNSPOT



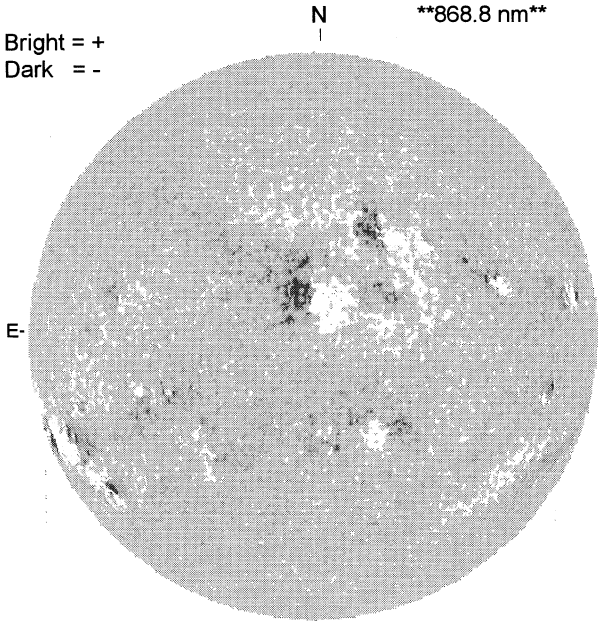

1206 UT

## SACRAMENTO PEAK CORONA (1.15 Radii)

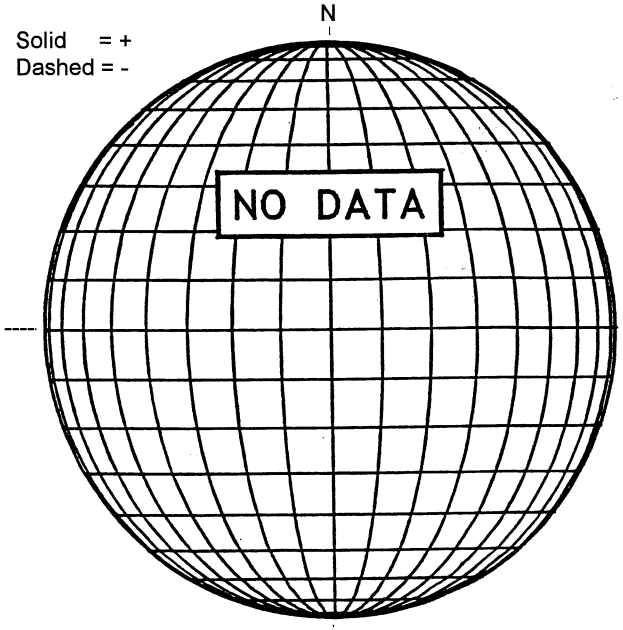


## AUGUST 22, 2001 ( P= 18.28, Bo = 6.94, Lo = 20.70)

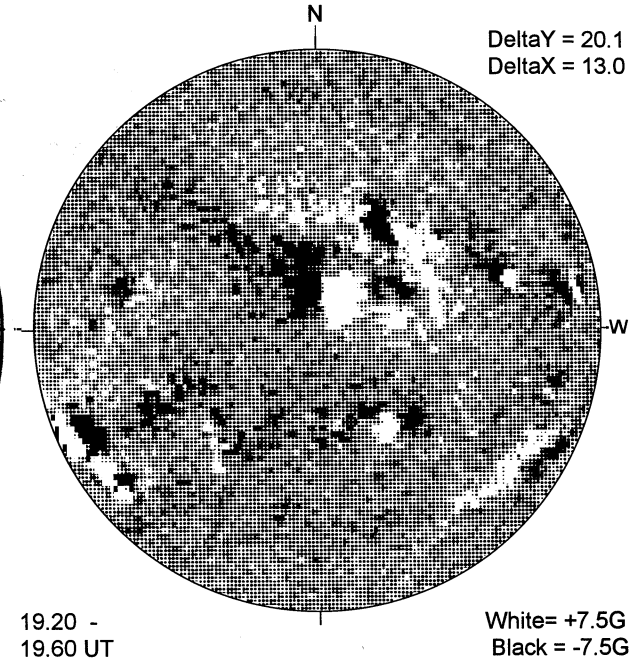
### KITT PEAK MAGNETOGRAM



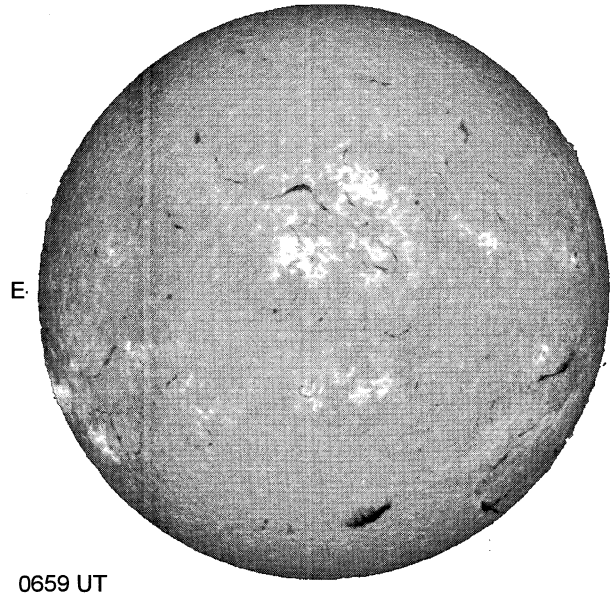

### STANFORD MAGNETOGRAM



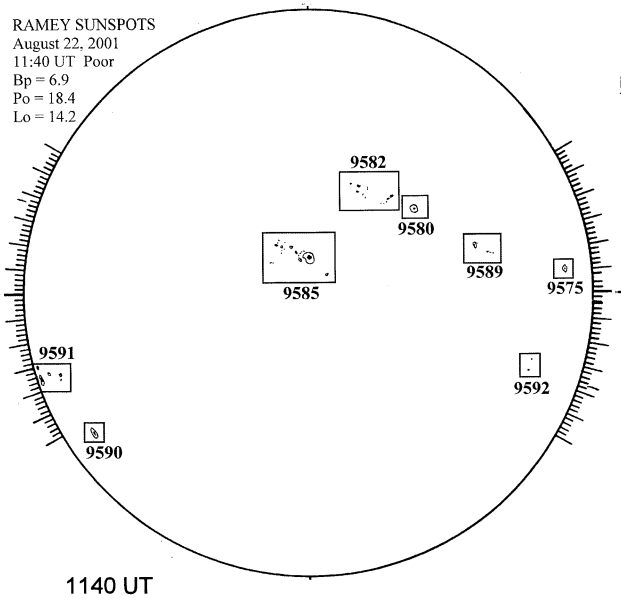

### MT. WILSON MAGNETOGRAM



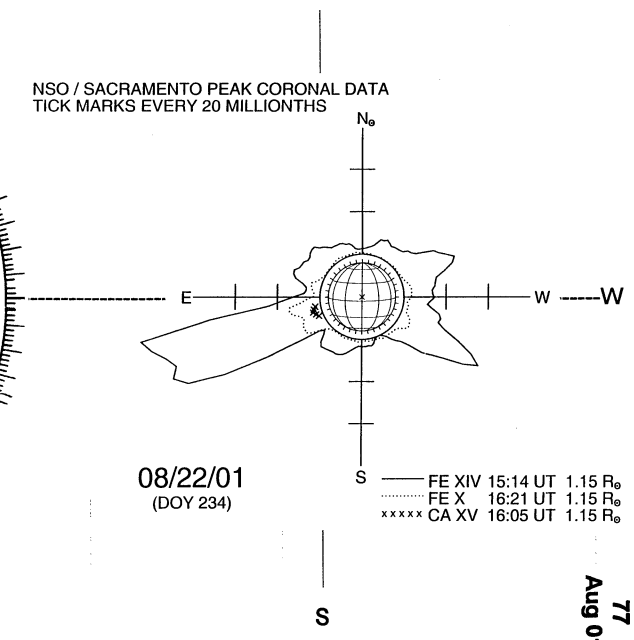

### MEUDON H-ALPHA




### RAMEY SUNSPOT




### SACRAMENTO PEAK CORONA (1.15 Radii)

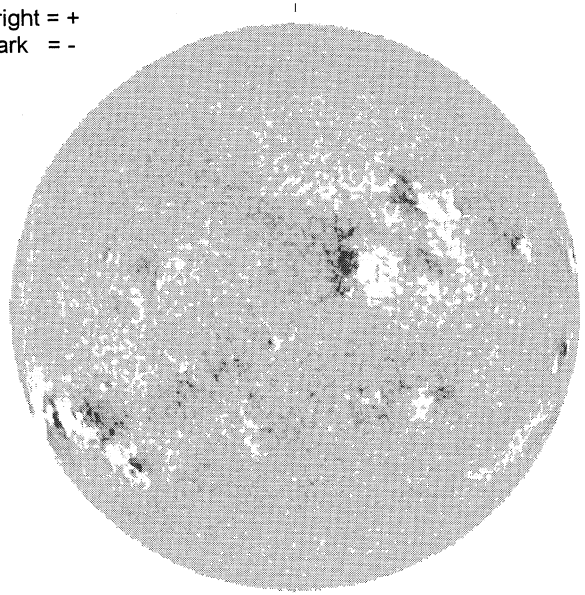


# AUGUST 23, 2001 ( P= 18.58, Bo = 6.98, Lo = 7.48)

## KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



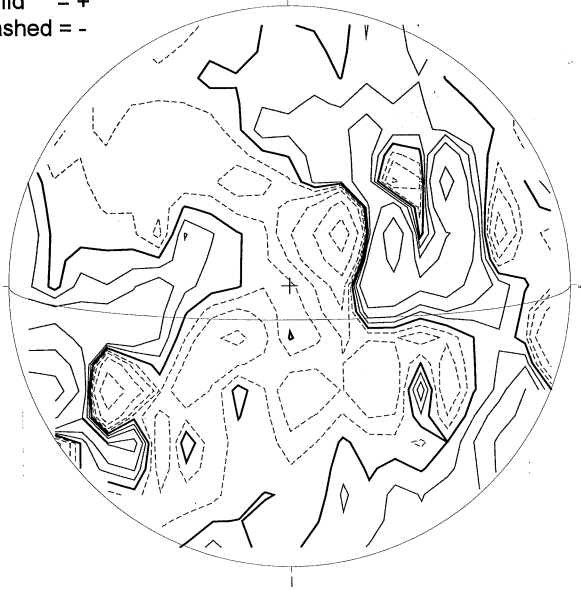
E

1651 UT

## STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

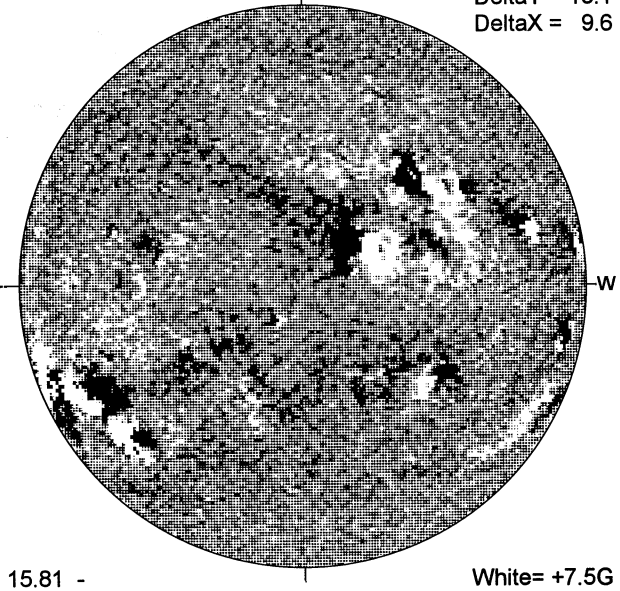


2132 UT

## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

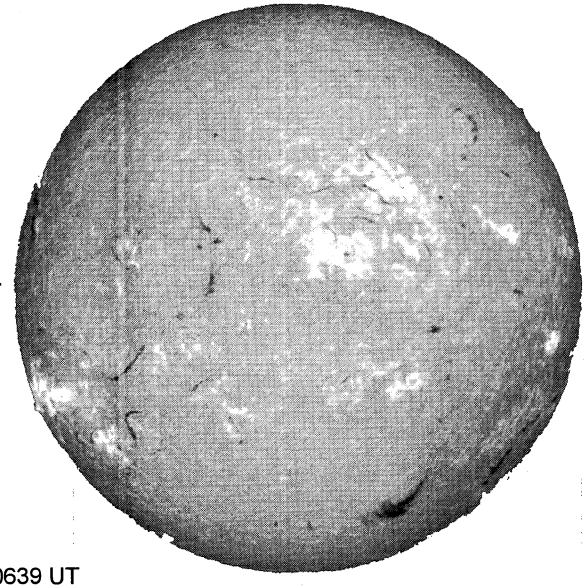


W

15.81 -
16.75 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

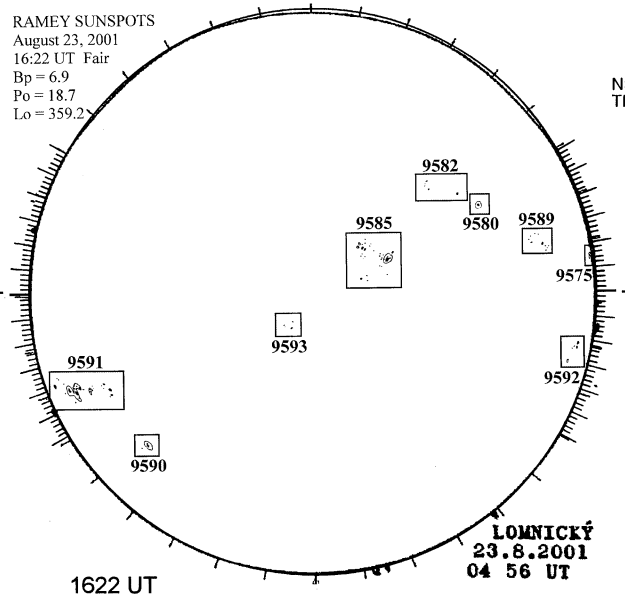


E

0639 UT

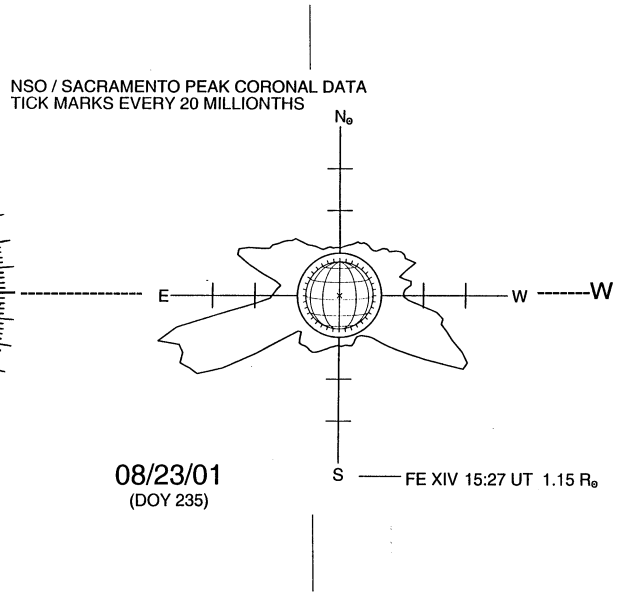
S

## RAMEY SUNSPOT




1622 UT
0456 UT LOMN Prom S

## SACRAMENTO PEAK CORONA (1.15 Radii)



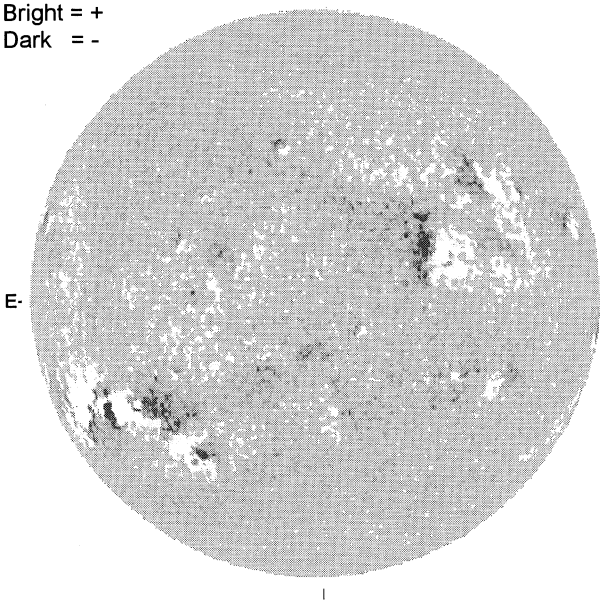

S

**AUGUST 24, 2001 ( P= 18.88, Bo = 7.01, Lo = 354.27)**

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



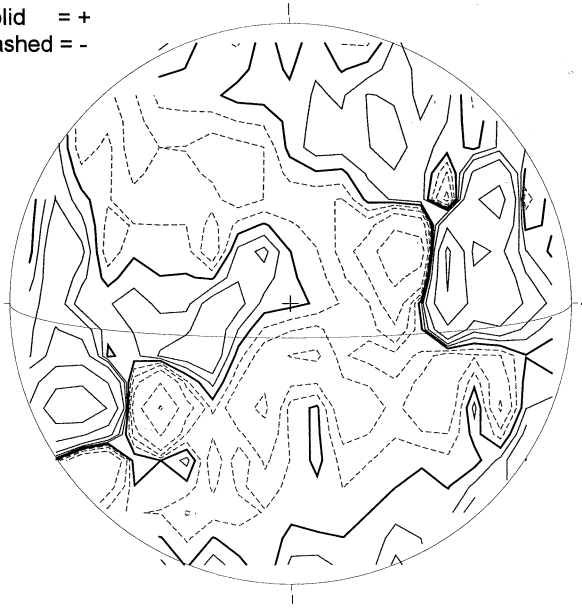
E-

1629 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

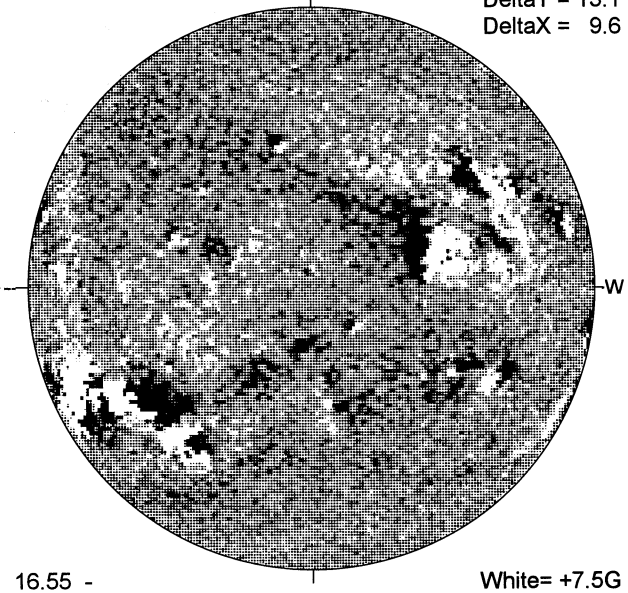


2225 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

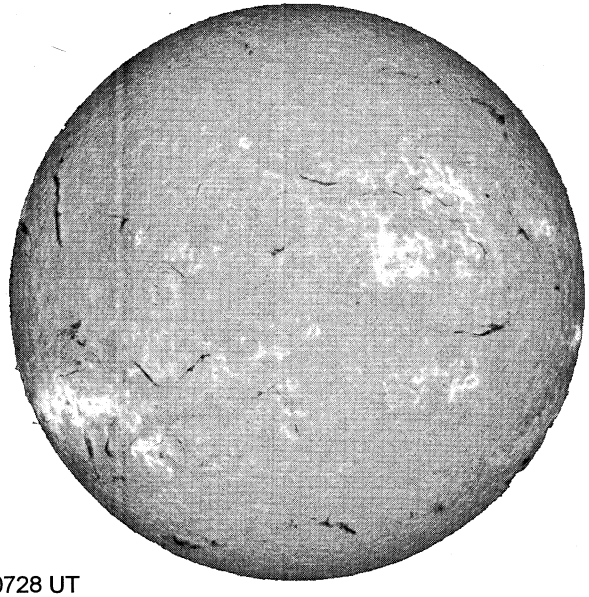


-W

16.55 -
17.48 UT

White= +7.5G
Black = -7.5G

MEUDON H-ALPHA

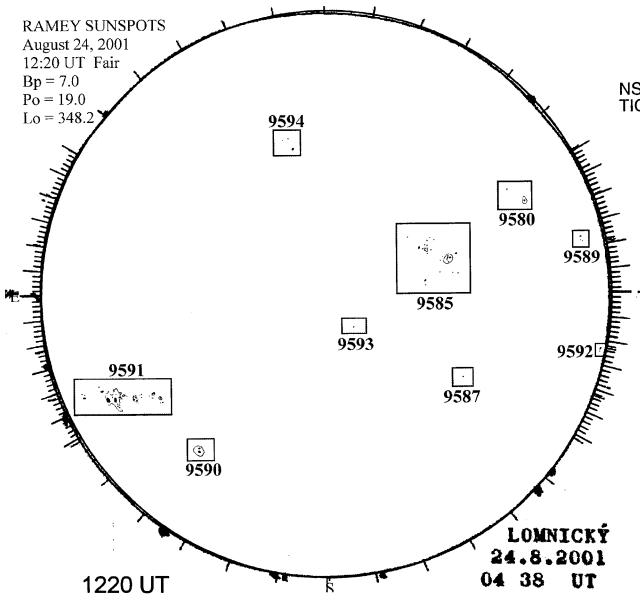


E

0728 UT

S

RAMEY SUNSPOT

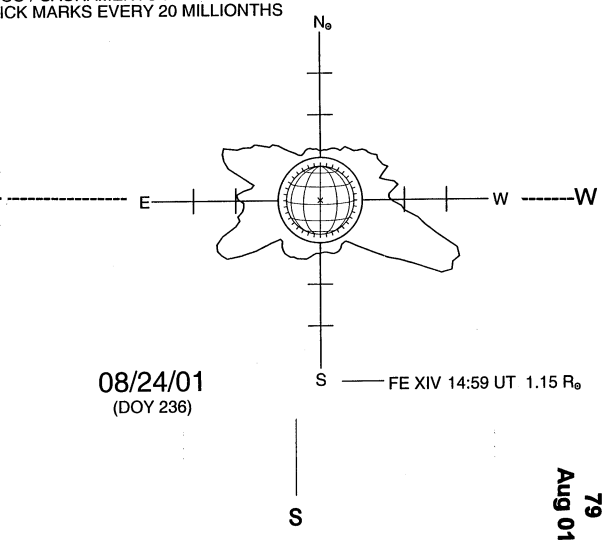



1220 UT

0438 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 20 MILLIONTHS




08/24/01
(DOY 236)

FE XIV 14:59 UT 1.15 R⊙

S

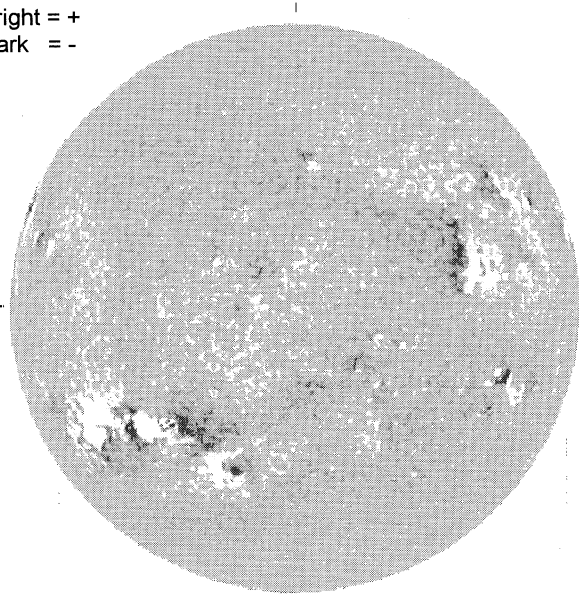
79
Aug 01

# AUGUST 25, 2001 ( P= 19.17, Bo = 7.04, Lo = 341.06)

## KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



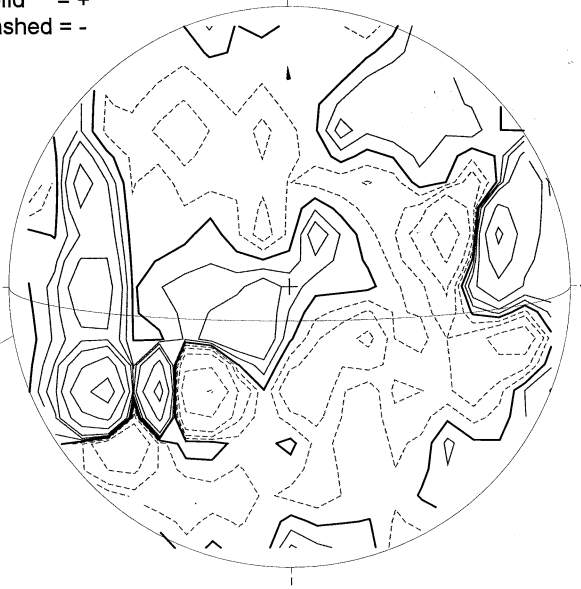
E-

1627 UT

## STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

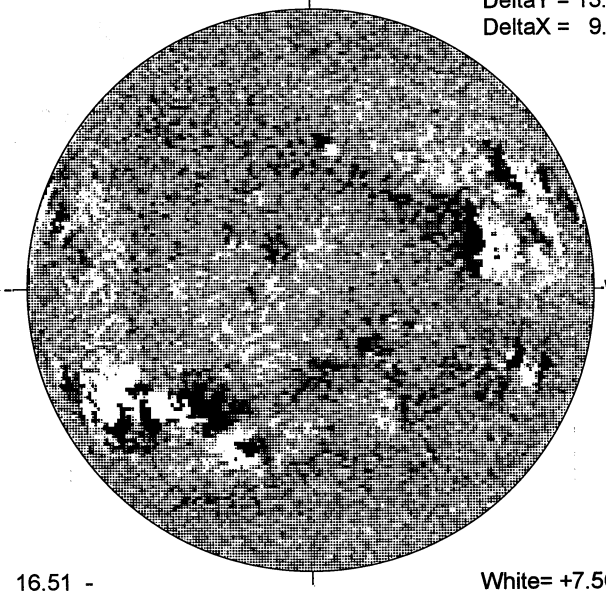


2132 UT

## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



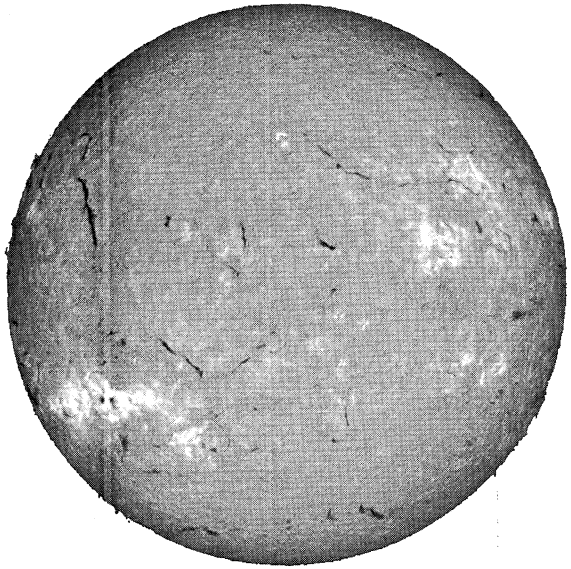
-W

16.51 -
17.44 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

-----

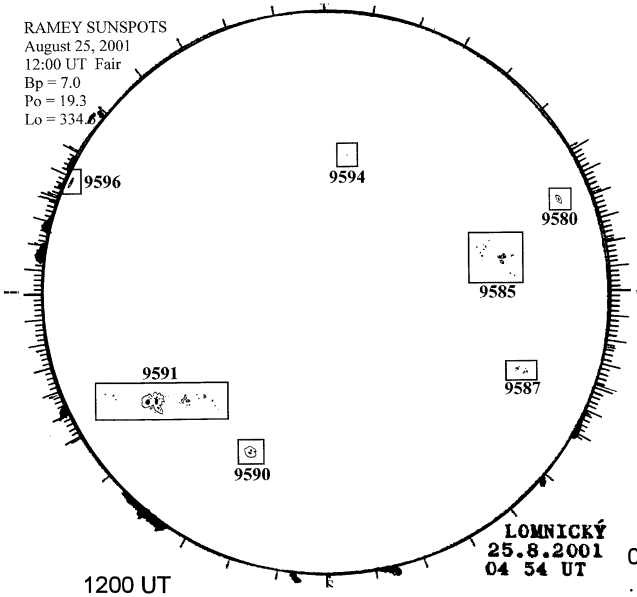


E-

0652 UT

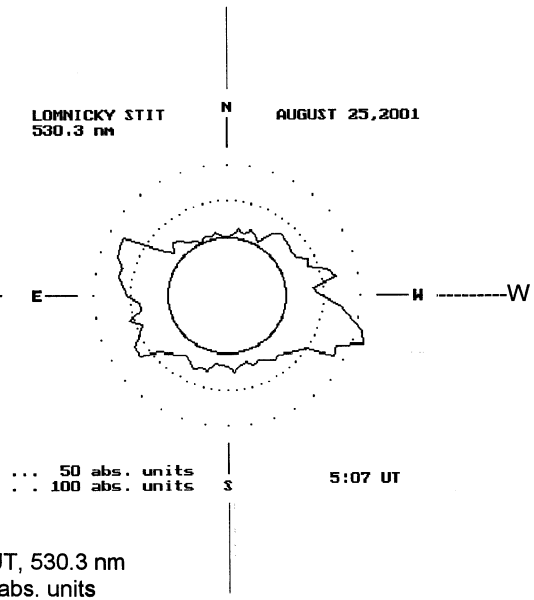
S

## RAMEY SUNSPOT




1200 UT
0454 UT LOMN Prom S

## LOMNICKY PEAK CORONA (1.04 Radii)----

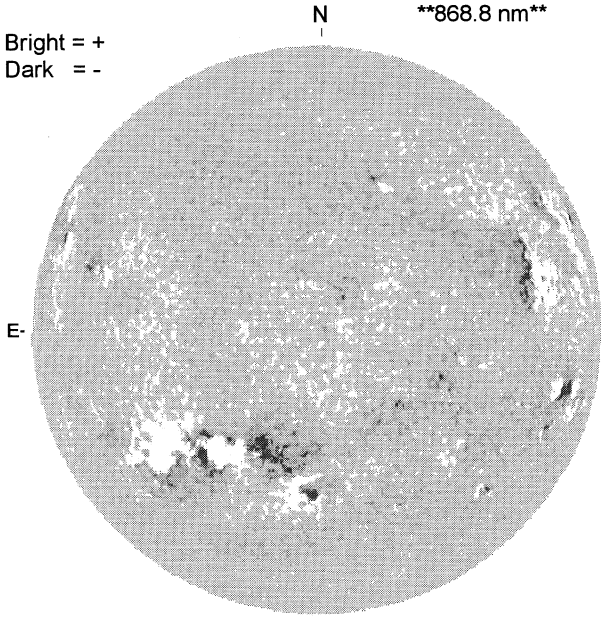



0507 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

S

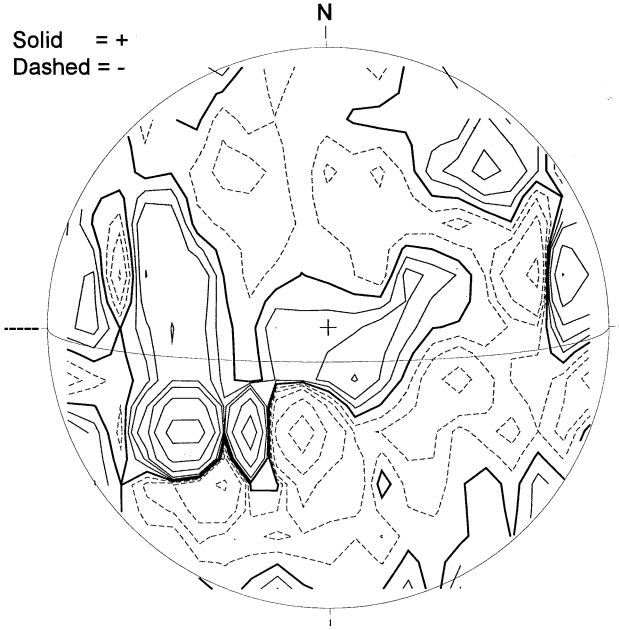
**AUGUST 26, 2001 ( P= 19.46, Bo = 7.07, Lo = 327.84)**

KITT PEAK MAGNETOGRAM



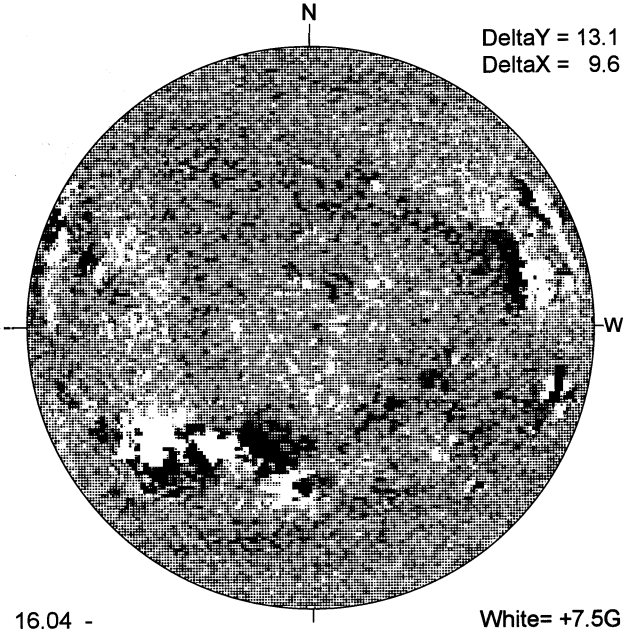

1613 UT

STANFORD MAGNETOGRAM




2222 UT

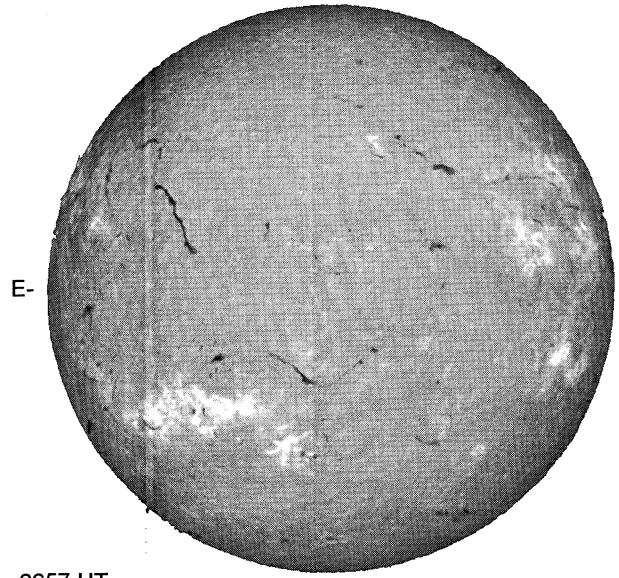
MT. WILSON MAGNETOGRAM




16.04 - 16.97 UT

White= +7.5G
Black = -7.5G

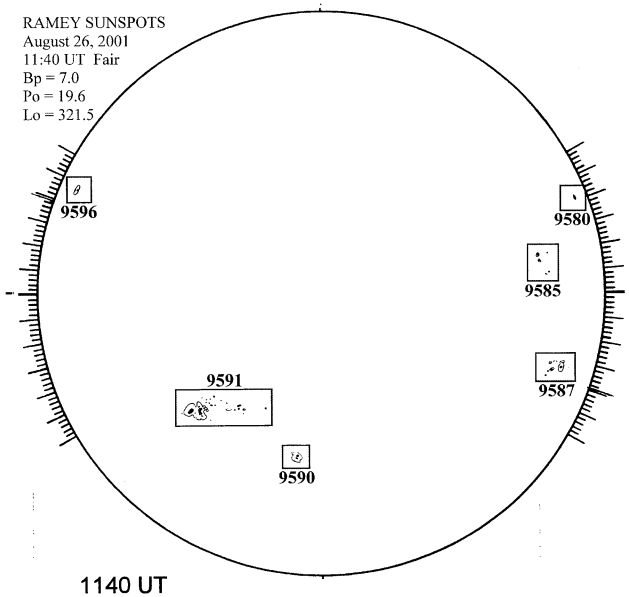
MEUDON H-ALPHA




0657 UT

S

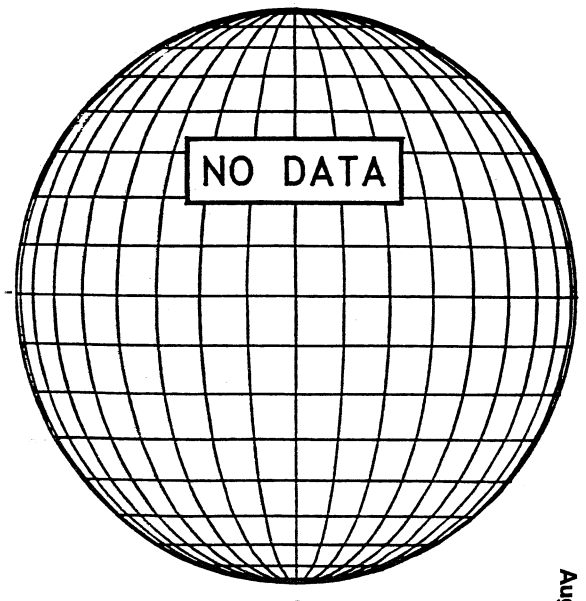
RAMEY SUNSPOT




1140 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



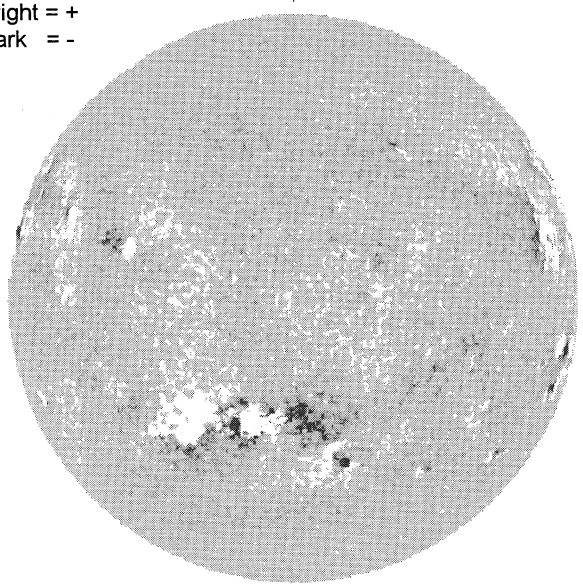

S

# AUGUST 27, 2001 ( P= 19.74, Bo = 7.09, Lo = 314.63)

## KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -



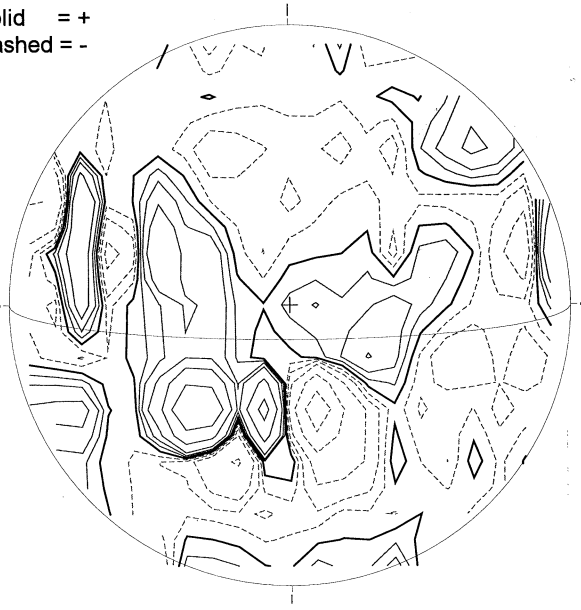
E

1559 UT

## STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

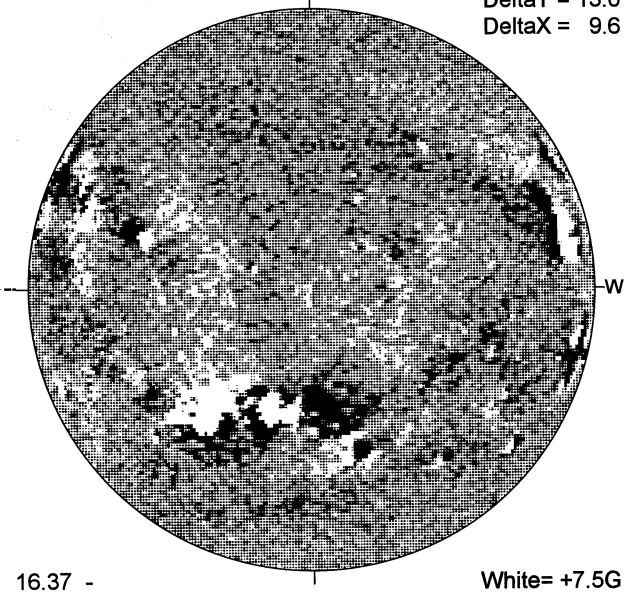


2128 UT

## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

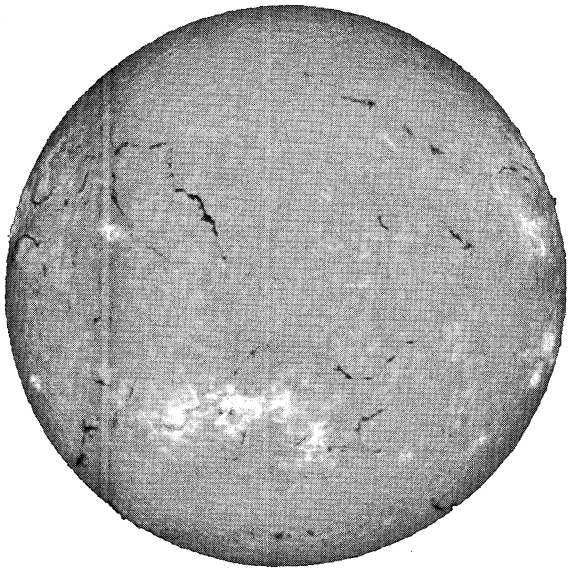


W

16.37 -
17.30 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

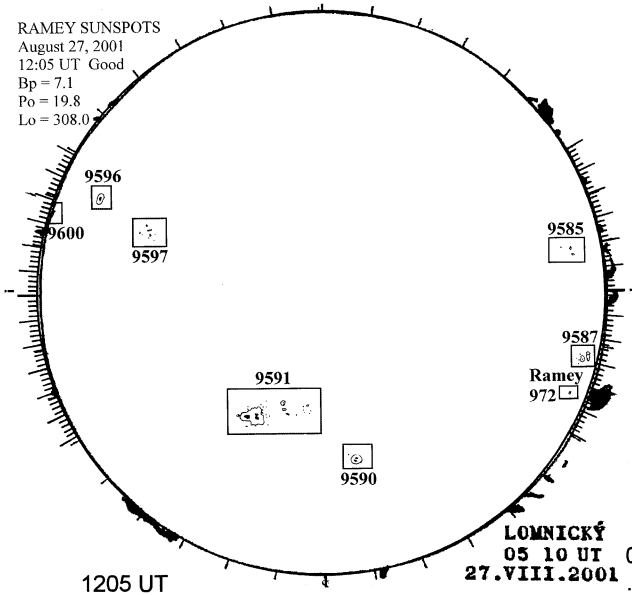


E

1422 UT

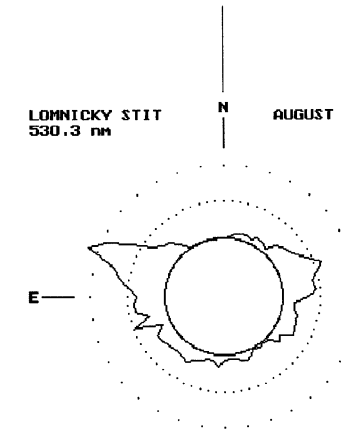
S

## RAMEY SUNSPOT




1205 UT
0510 UT LOMN Prom S

## LOMNICKY PEAK CORONA (1.04 Radii)

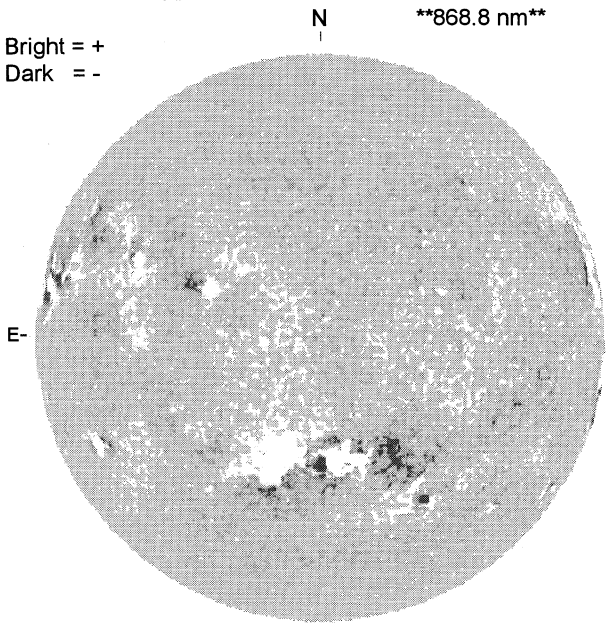



0539 UT, 530.3 nm
.... 50 abs. units
. . 100 units

S

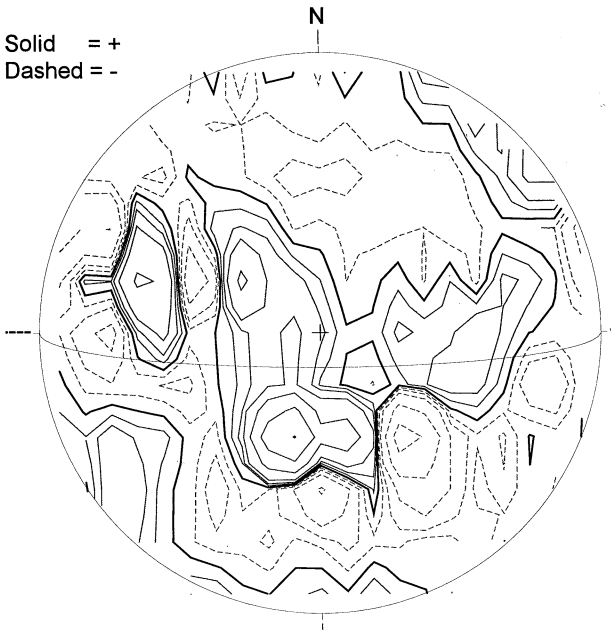
**AUGUST 28, 2001 ( P= 20.02, Bo = 7.12, Lo = 301.42)**

KITT PEAK MAGNETOGRAM



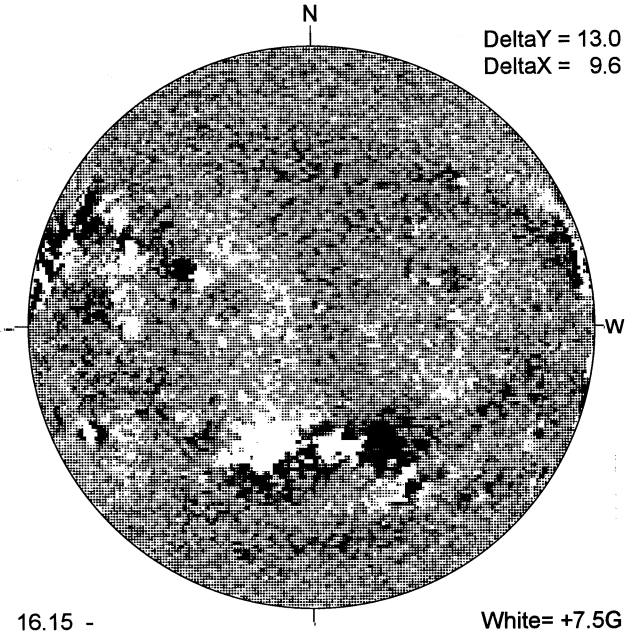

1537 UT

STANFORD MAGNETOGRAM




2115 UT

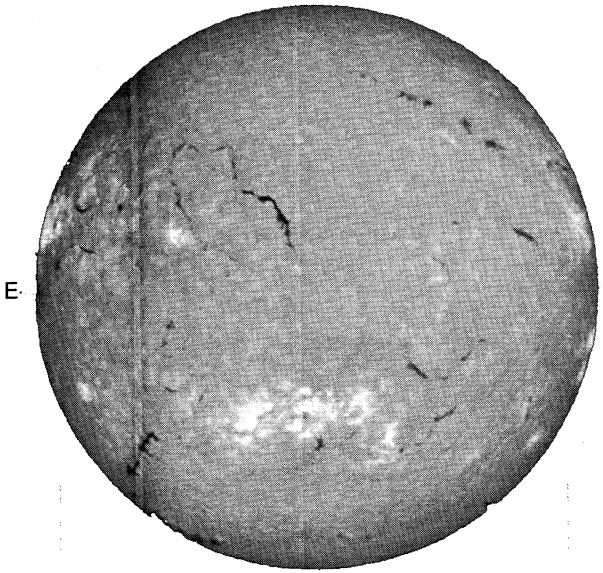
MT. WILSON MAGNETOGRAM




16.15 -
17.09 UT

White= +7.5G
Black = -7.5G

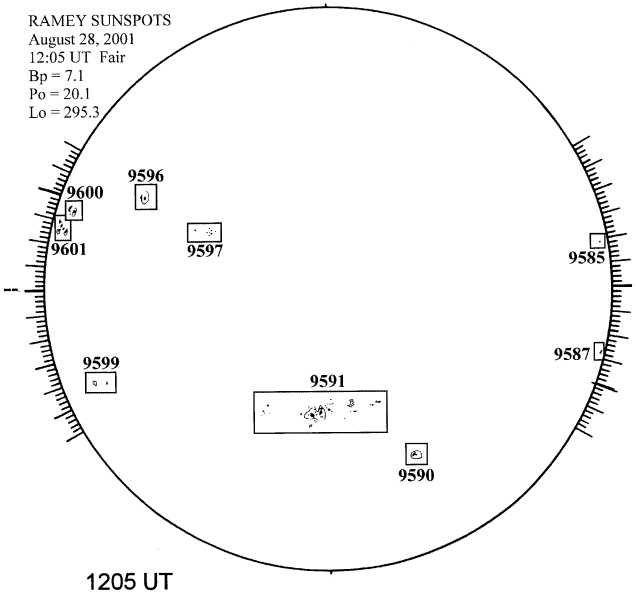
MEUDON H-ALPHA




0731 UT

S

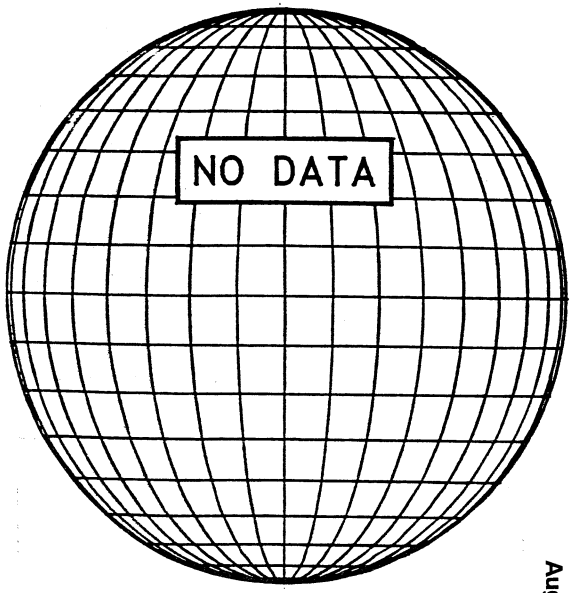
RAMEY SUNSPOT




1205 UT

S

LOMNICKY PEAK CORONA (1.04 Radii)----




S

83
Aug 01

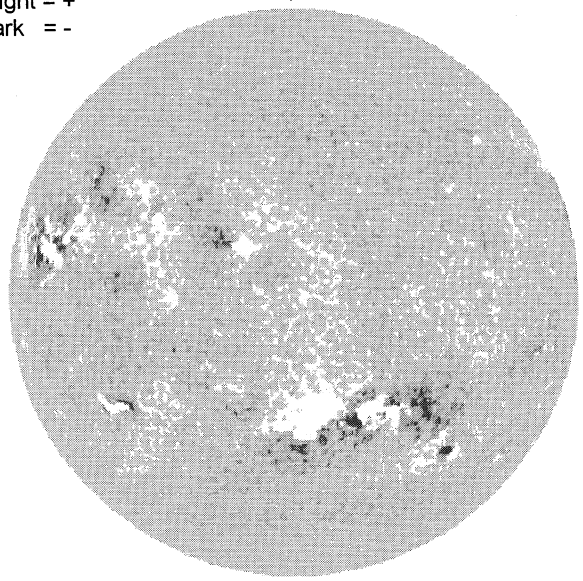
# AUGUST 29, 2001 ( P= 20.30, Bo = 7.14, Lo = 288.21)

## KITT PEAK MAGNETOGRAM

N

**868.8 nm**

Bright = +
Dark = -



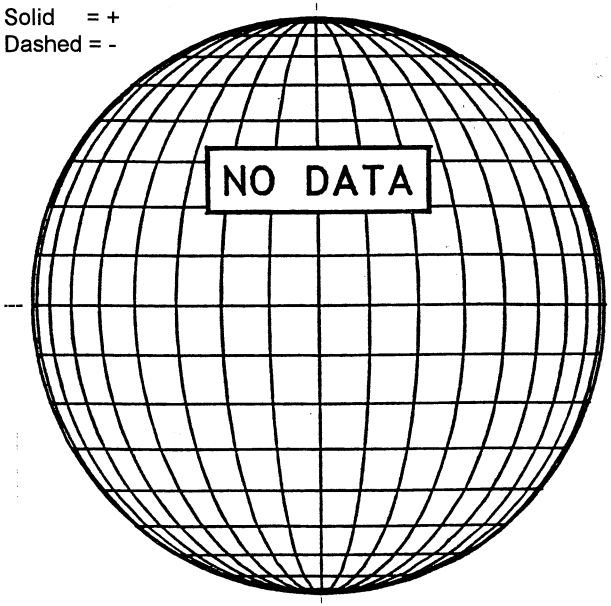
E-

1531 UT

## STANFORD MAGNETOGRAM

N

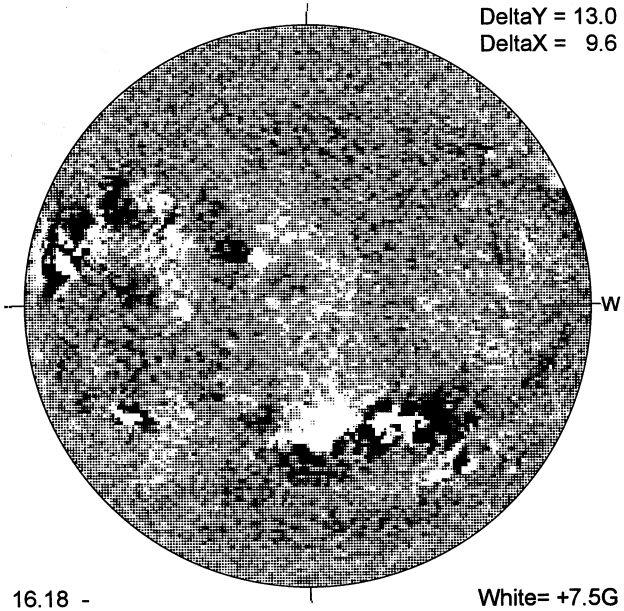
Solid = +
Dashed = -




## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6



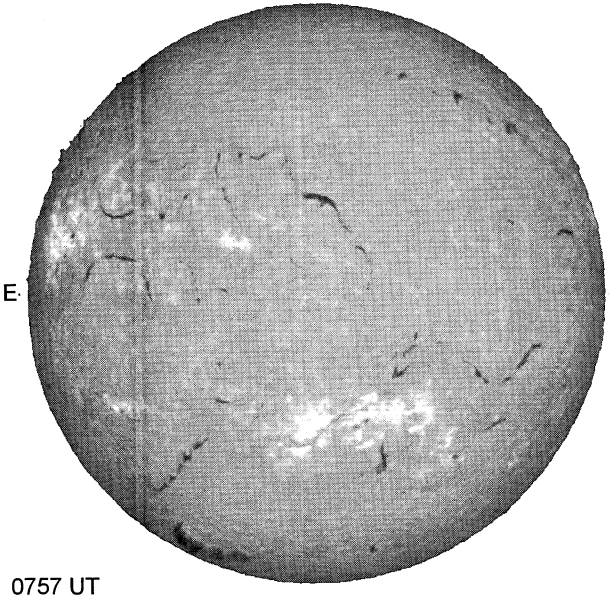
W

16.18 -
17.11 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

-----



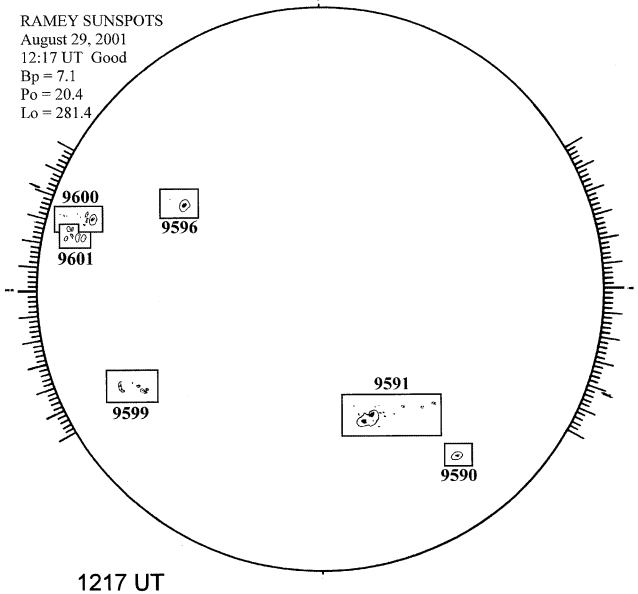
E

0757 UT

S

## RAMEY SUNSPOT

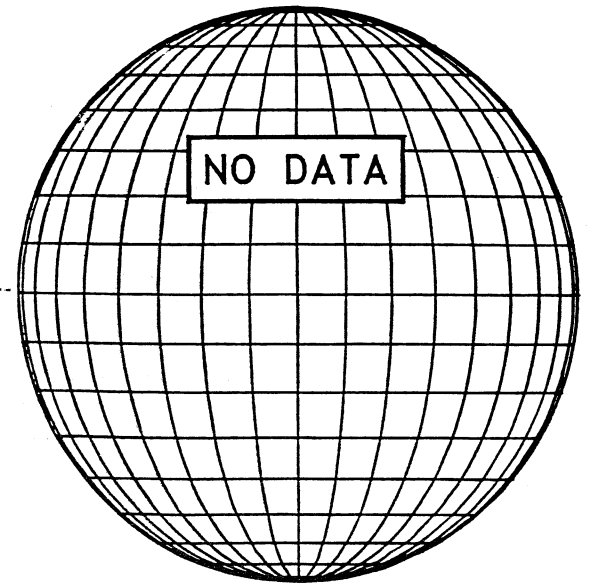
RAMEY SUNSPOTS
August 29, 2001
12:17 UT Good
Bp = 7.1
Po = 20.4
Lo = 281.4




1217 UT

S

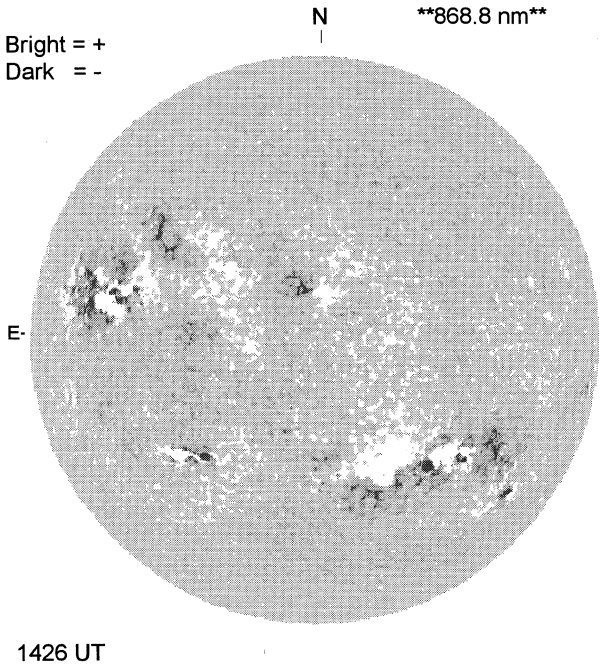
## SACRAMENTO PEAK CORONA (1.15 Radii)----




S

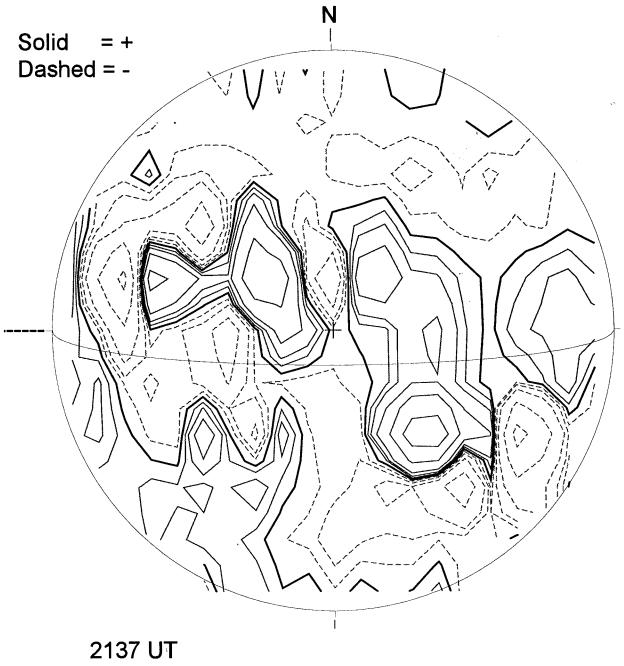
**AUGUST 30, 2001 ( P= 20.56, Bo = 7.16, Lo = 275.00)**

KITT PEAK MAGNETOGRAM



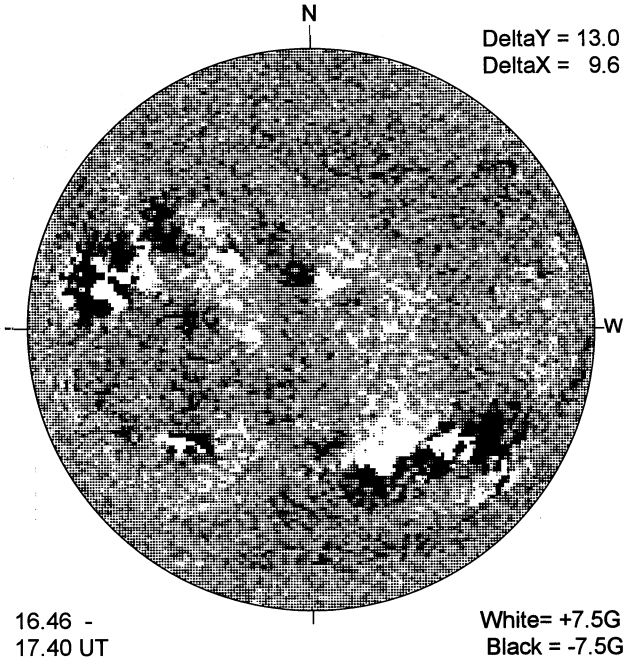

1426 UT

STANFORD MAGNETOGRAM




2137 UT

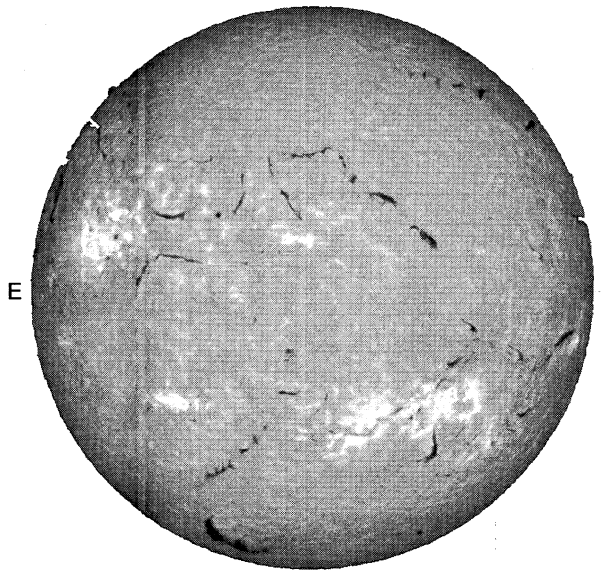
MT. WILSON MAGNETOGRAM




16.46 -
17.40 UT

White= +7.5G
Black = -7.5G

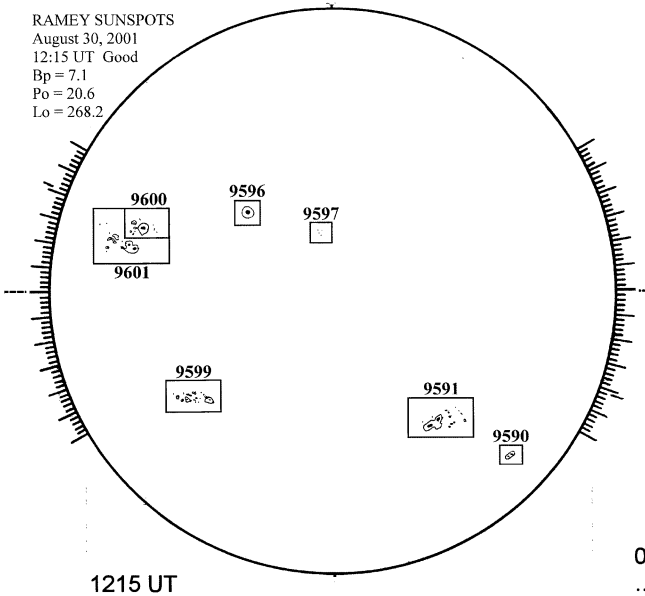
MEUDON H-ALPHA




0950 UT

S

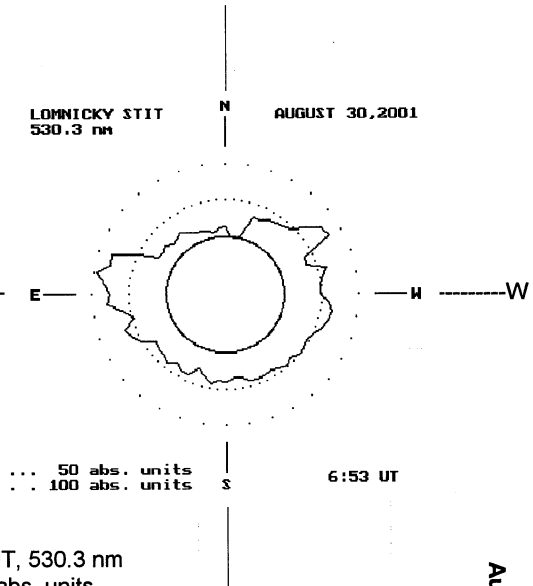
RAMEY SUNSPOT




1215 UT

S

LOMNICKY PEAK CORONA (1.04 Radii)----




0653 UT, 530.3 nm
.... 50 abs. units
. . 100 abs. units

S

85
Aug 01

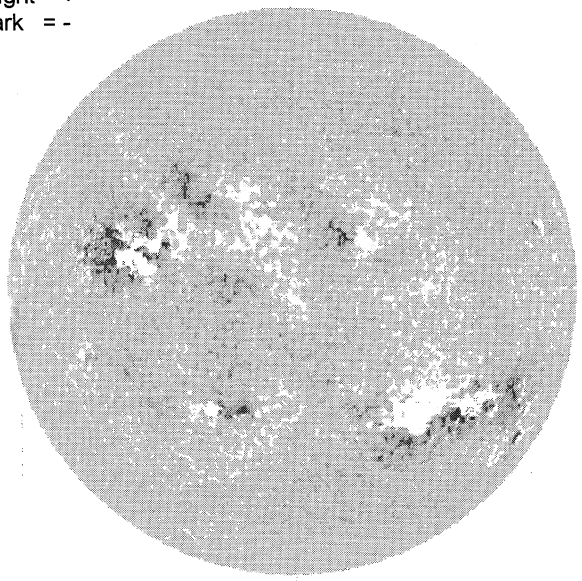
# AUGUST 31, 2001 ( P= 20.82, Bo = 7.18, Lo = 261.79)

## KITT PEAK MAGNETOGRAM

N

**868.8 nm**

Bright = +
Dark = -



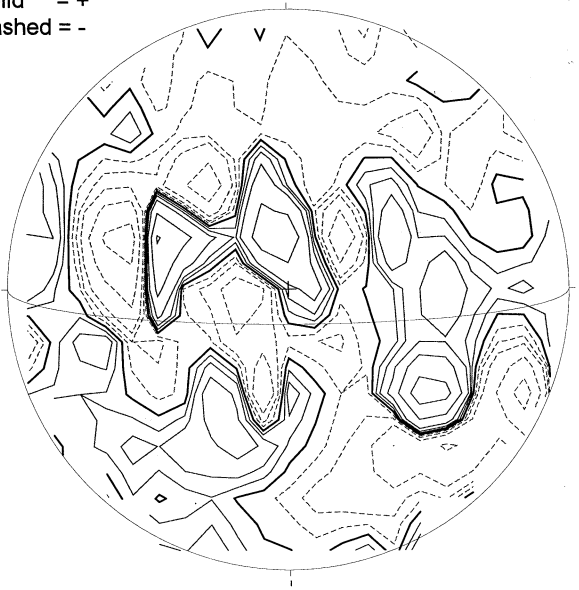
E-

1430 UT

## STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

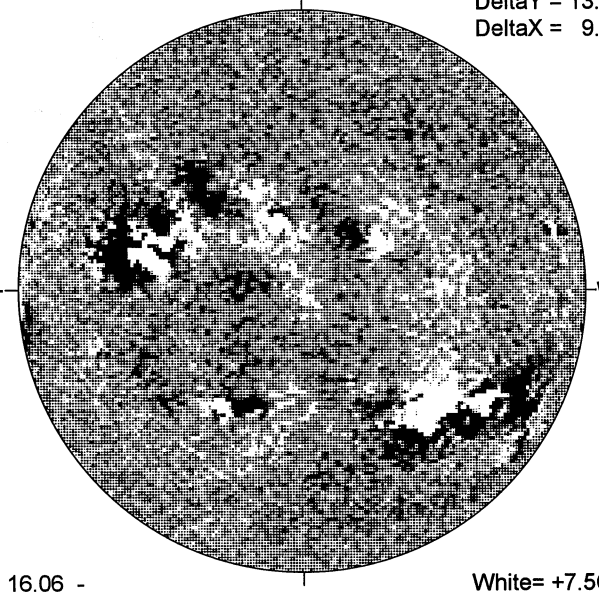


2150 UT

## MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6

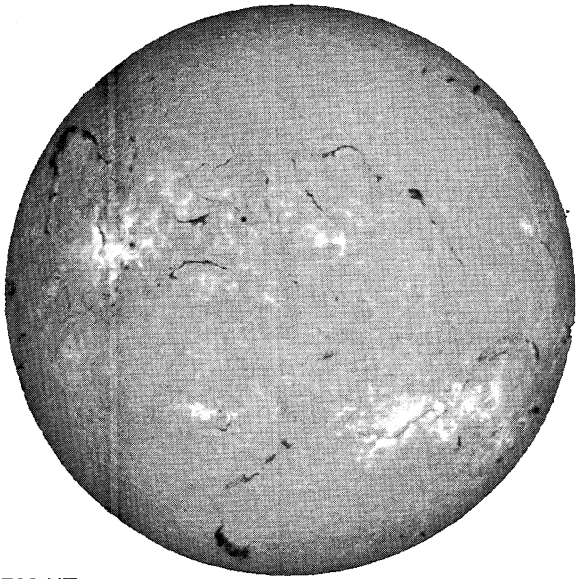


-W

16.06 -
17.00 UT

White= +7.5G
Black = -7.5G

## MEUDON H-ALPHA

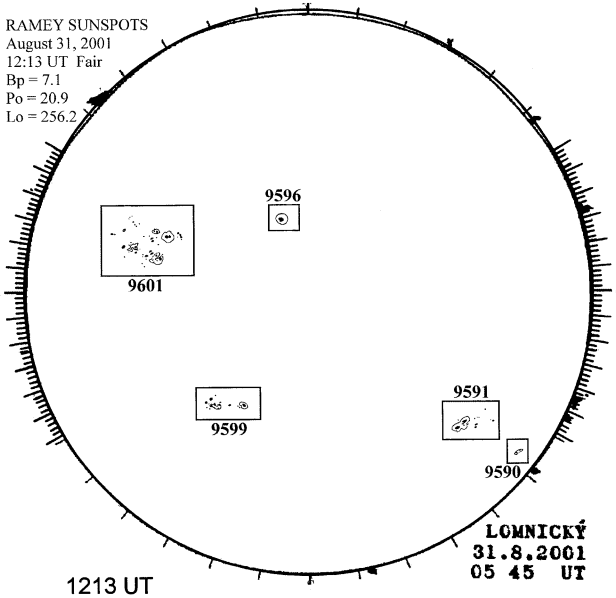


E

0703 UT

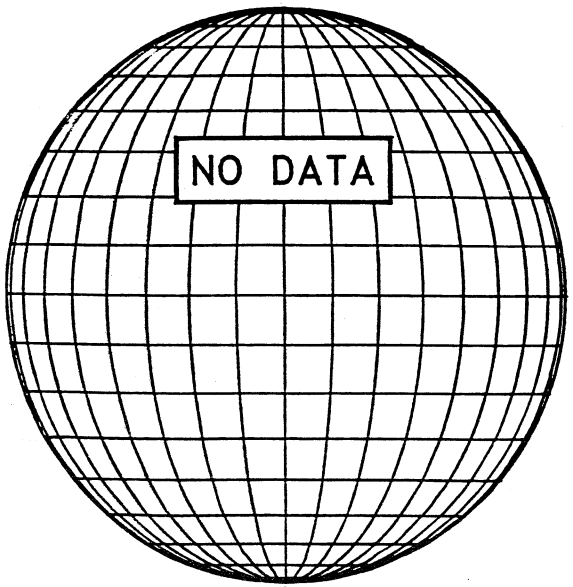
S

## RAMEY SUNSPOT




1213 UT
0545 UT LOMN Prom S

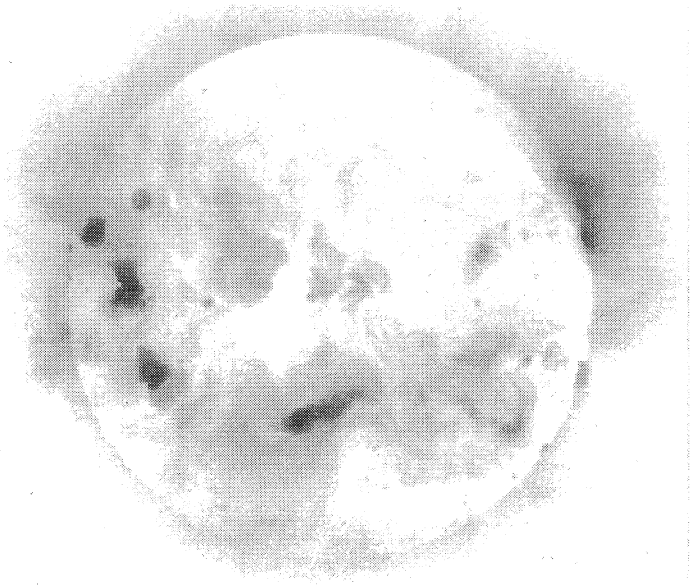
## SACRAMENTO PEAK CORONA (1.15 Radii)



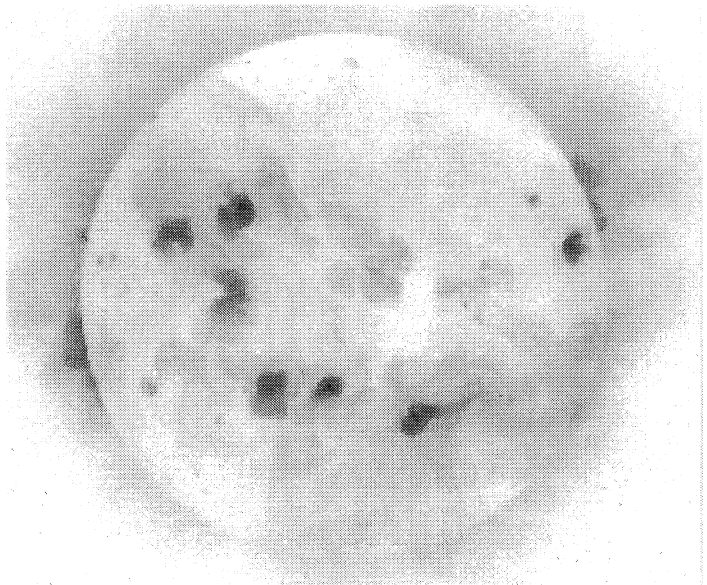

S

# YOHKOH SOFT X-RAY TELESCOPE IMAGES

August
2001

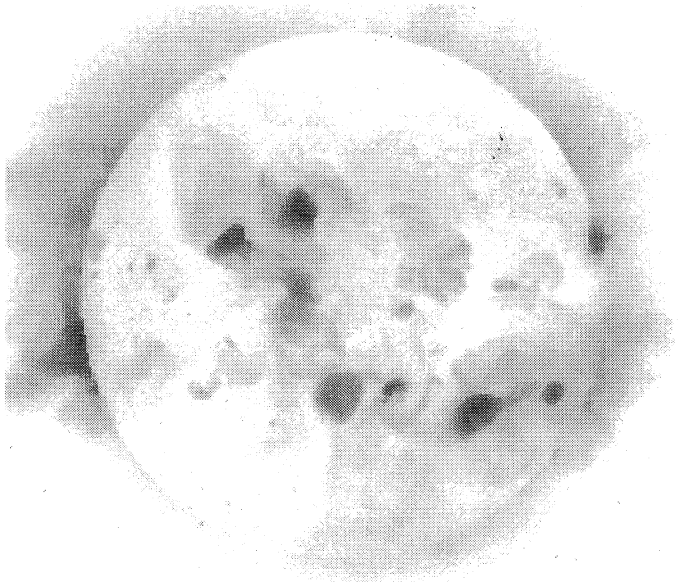


Day 1
15:27:00 UT



Day 3
12:01:07 UT

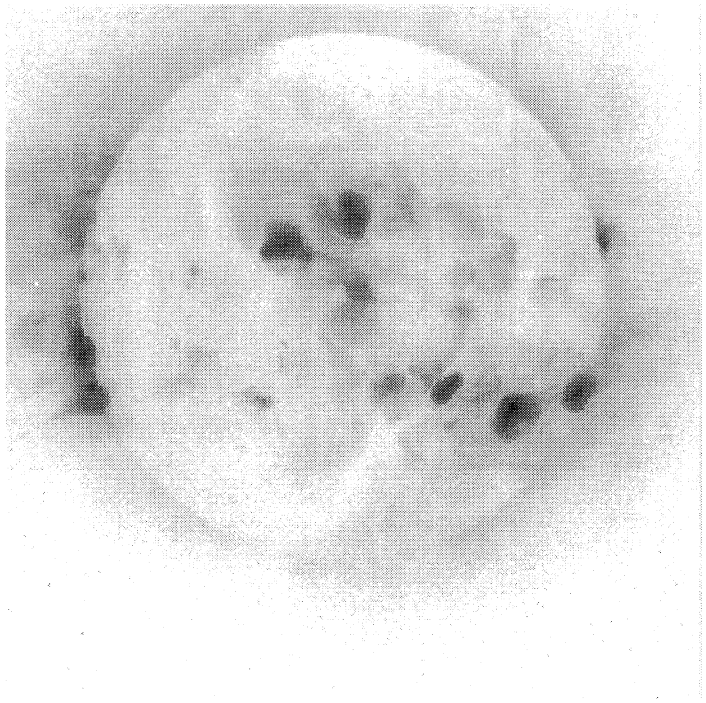
Day 2
12:17:15 UT



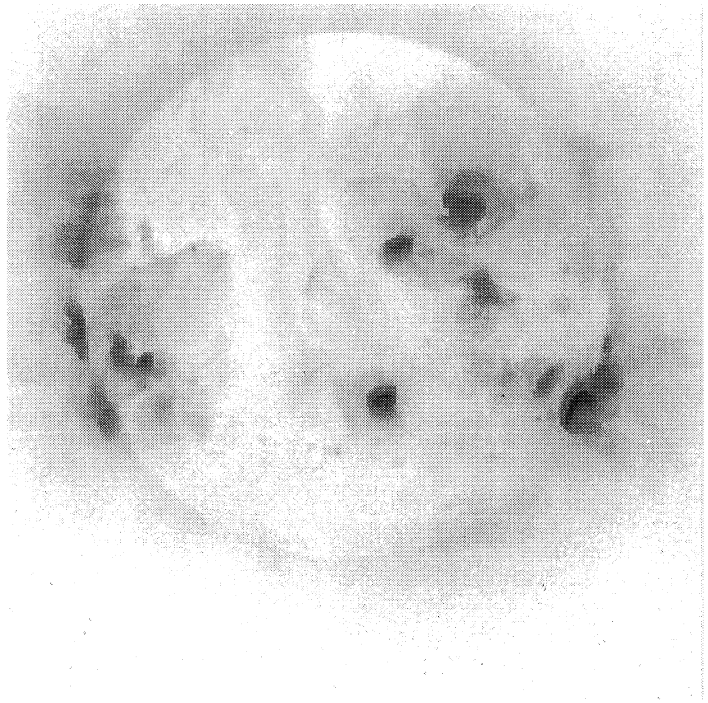
Day 4
13:45:55 UT

# YOHKOH SOFT X-RAY TELESCOPE IMAGES

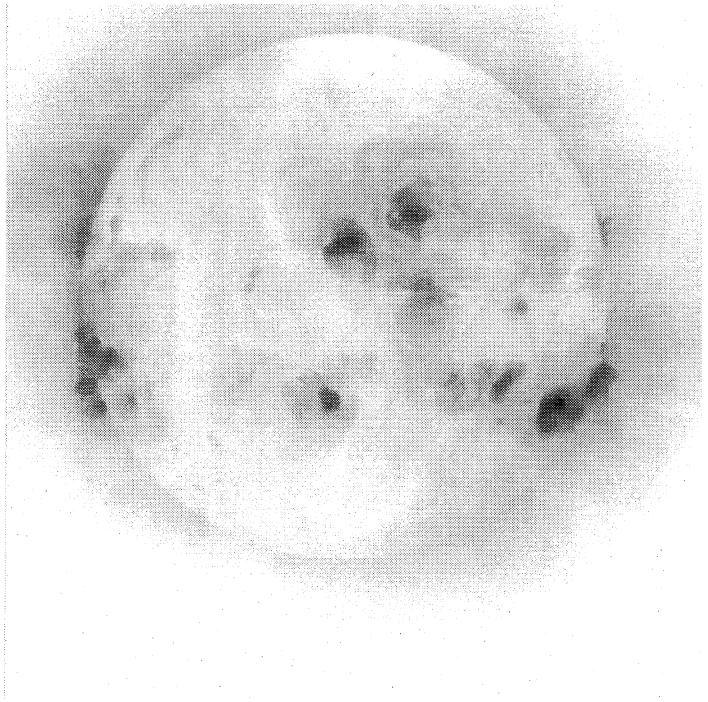
August
2001



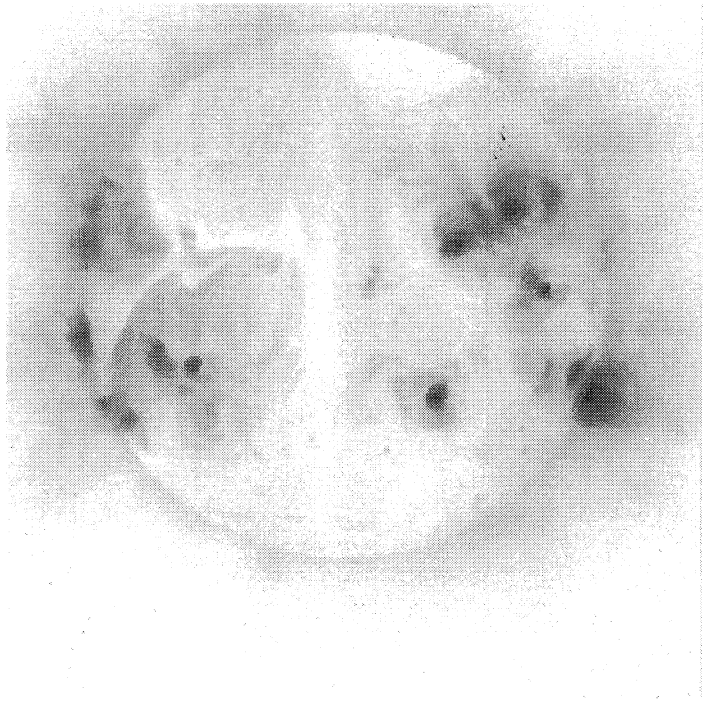
Day 5
12:03:15 UT



Day 7
12:09:38 UT



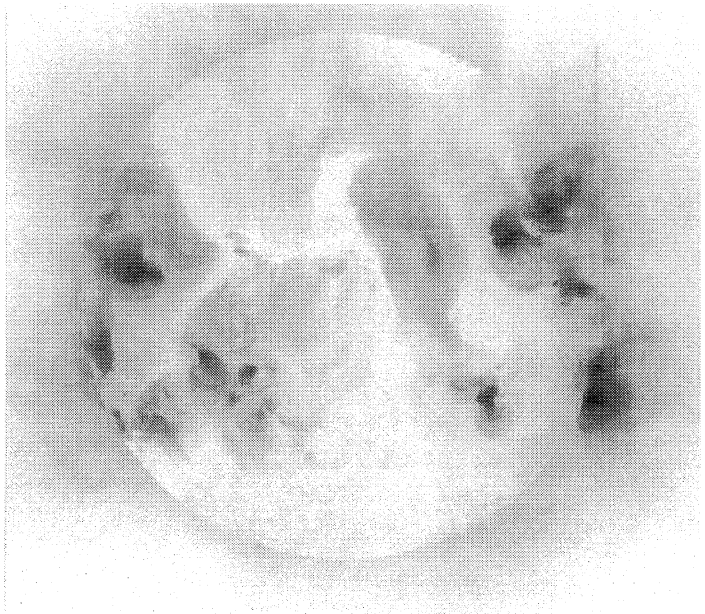
Day 6
12:34:43 UT



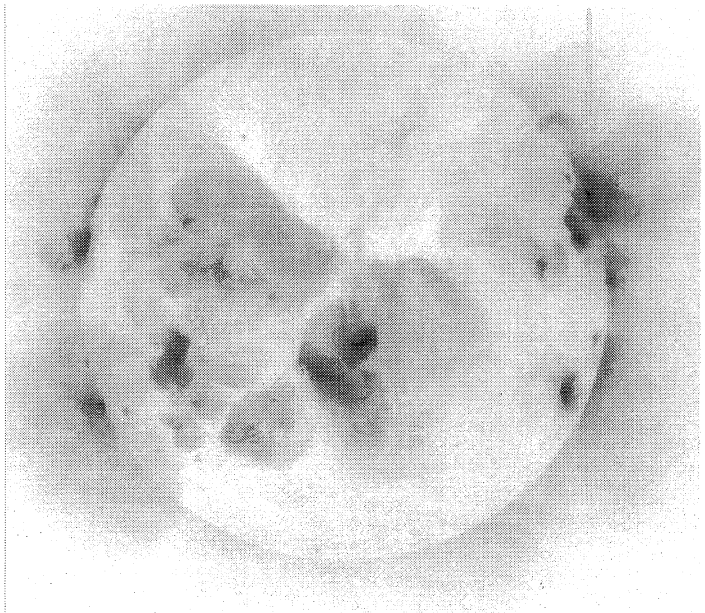
Day 8
12:08:34 UT

# YOHKOH SOFT X-RAY TELESCOPE IMAGES

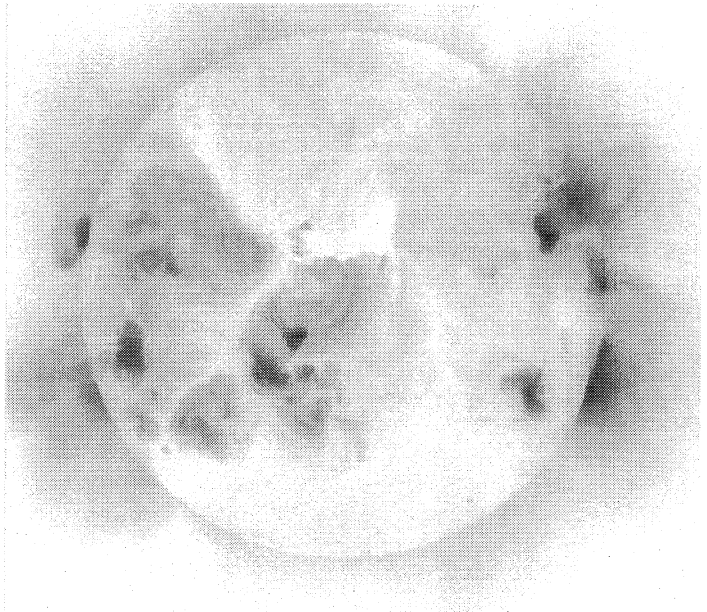
August 2001



Day 9
12:31:00 UT



Day 11
12:31:42 UT

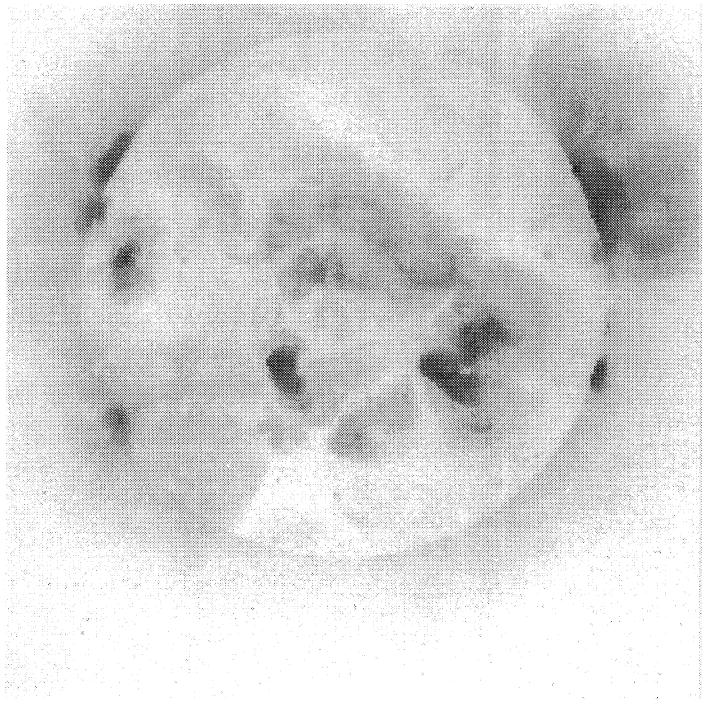


Day 10
12:30:04 UT

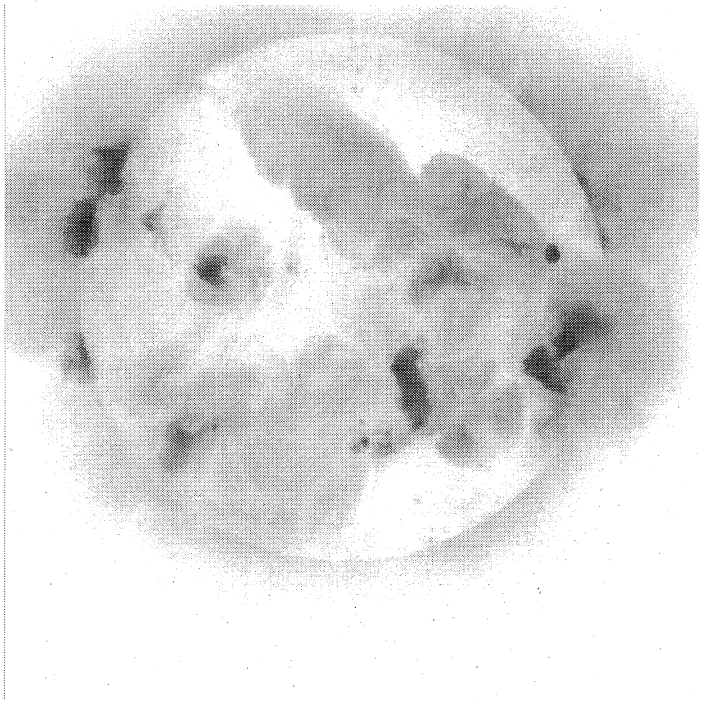
Day 12
12:30:39 UT

# YOHKOH SOFT X-RAY TELESCOPE IMAGES

August
2001

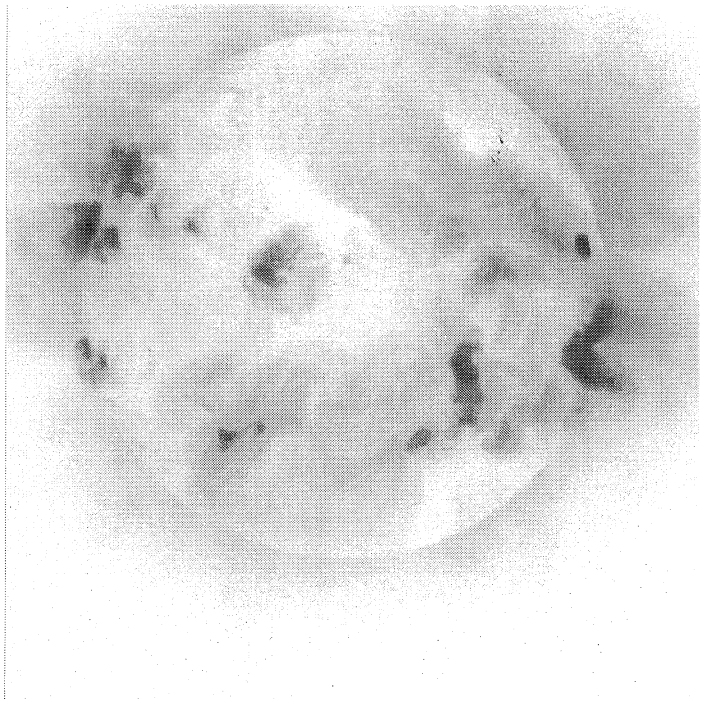


Day 13
12:13:05 UT



Day 15
12:34:43 UT

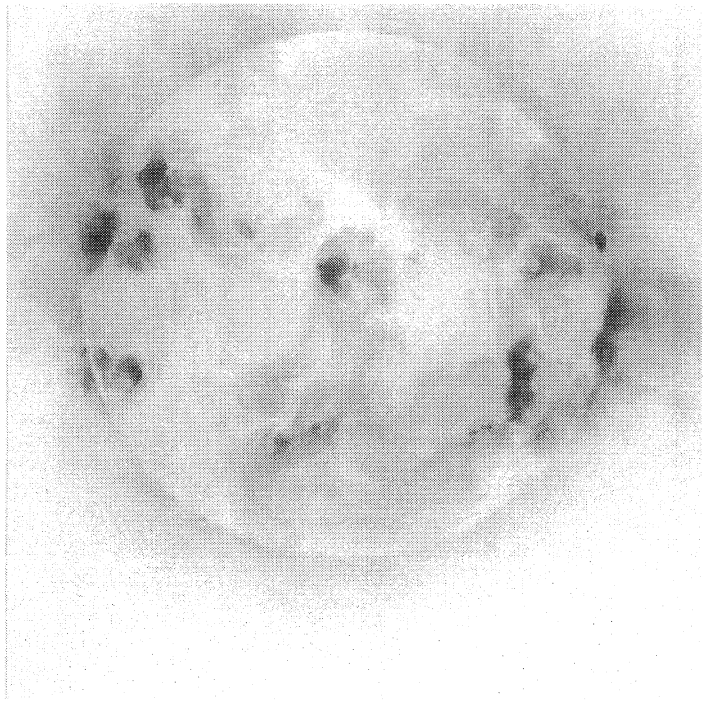
Day 14
12:35:31 UT



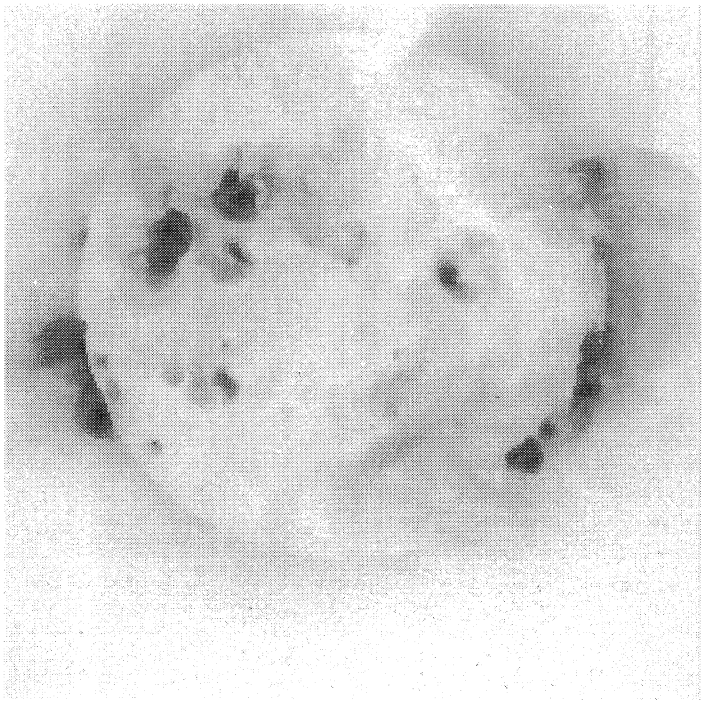
Day 16
10:58:57 UT

# YOHKOH SOFT X-RAY TELESCOPE IMAGES

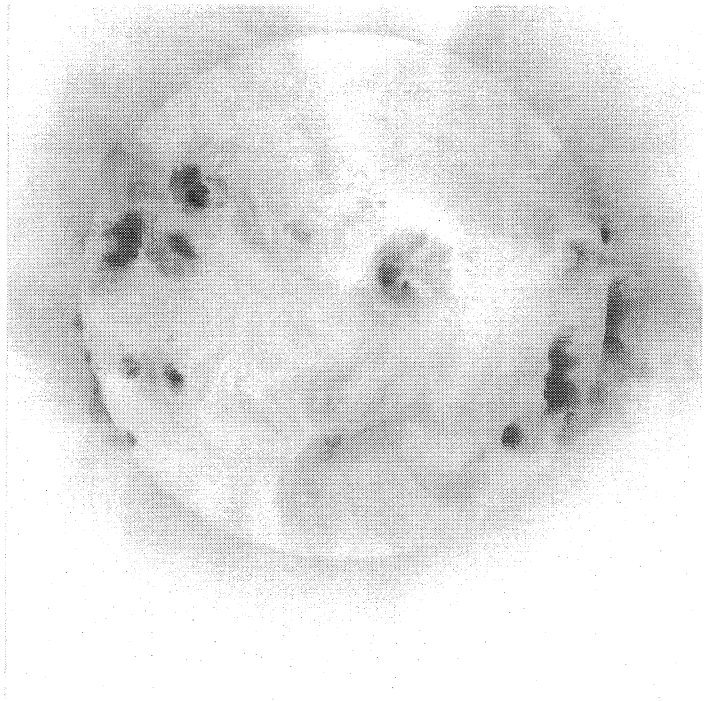
August 2001



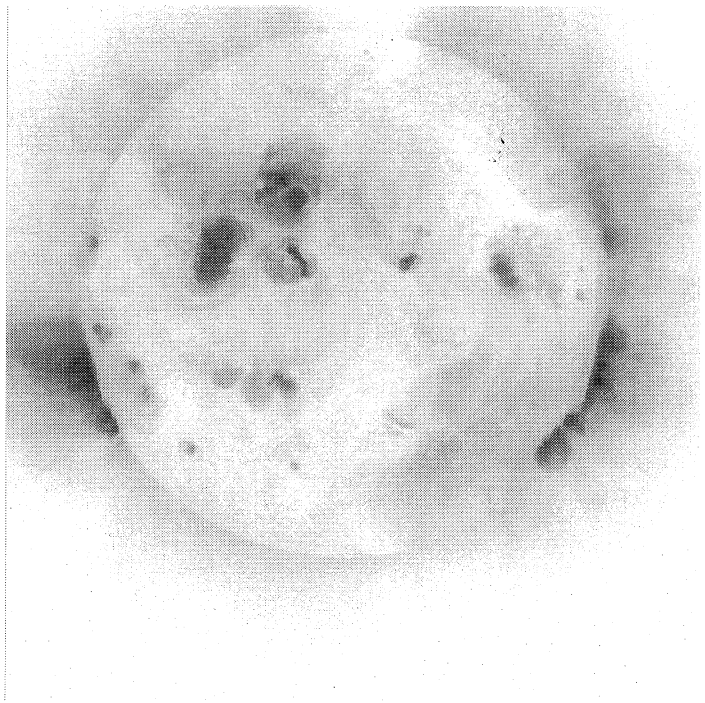
Day 17
12:32:52 UT



Day 19
12:30:24 UT



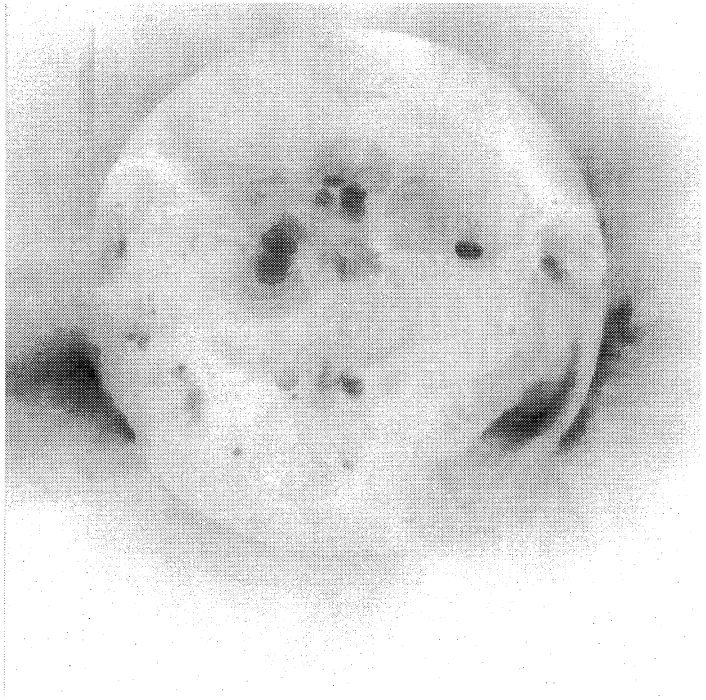
Day 18
10:52:02 UT



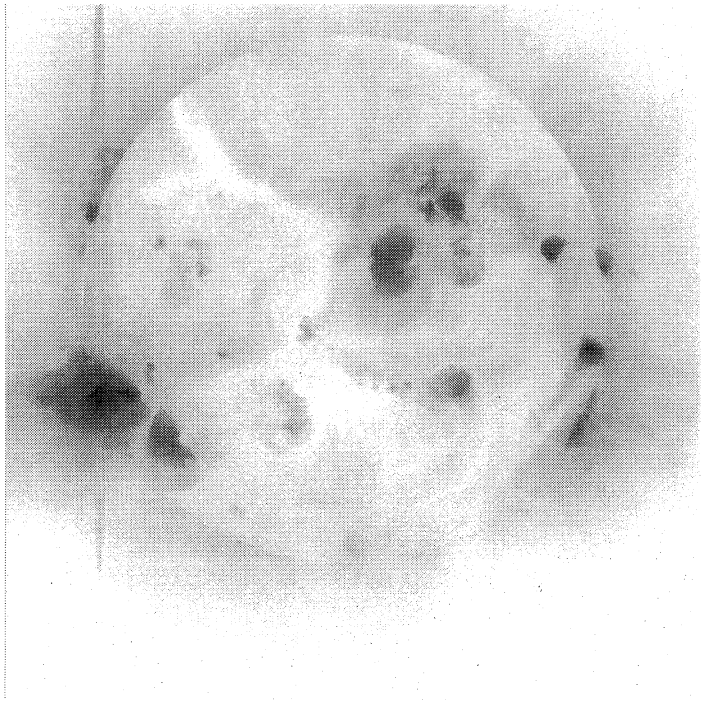
Day 20
11:48:30 UT

# YOHKOH SOFT X-RAY TELESCOPE IMAGES

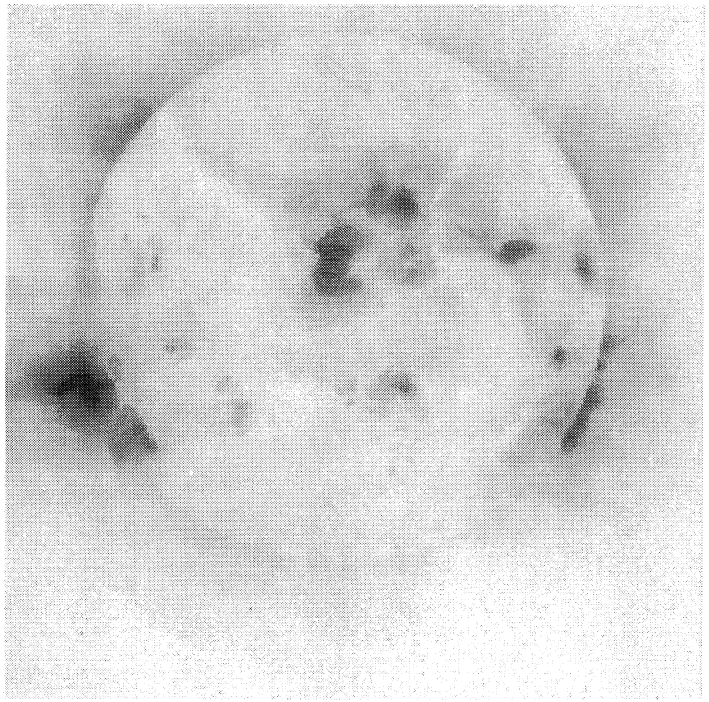
August
2001



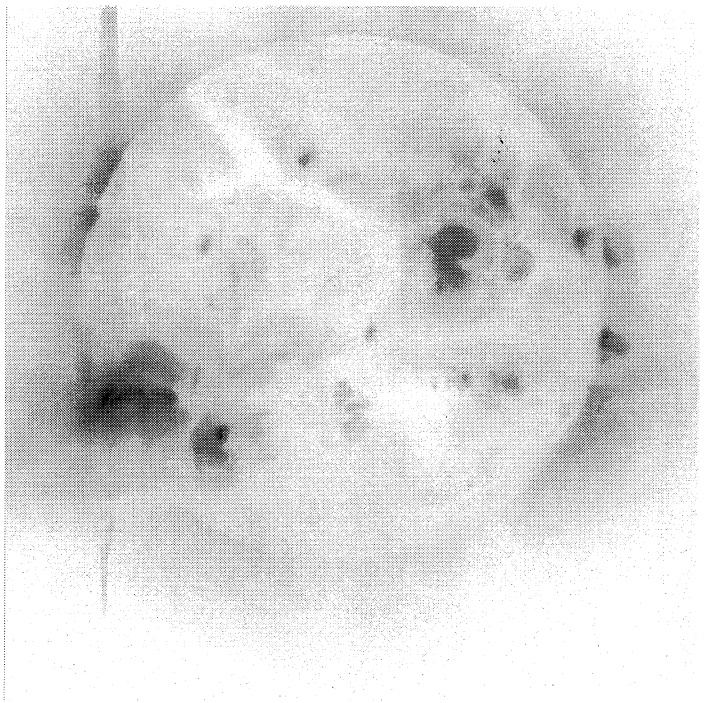
Day 21
13:30:01 UT



Day 23
10:50:55 UT



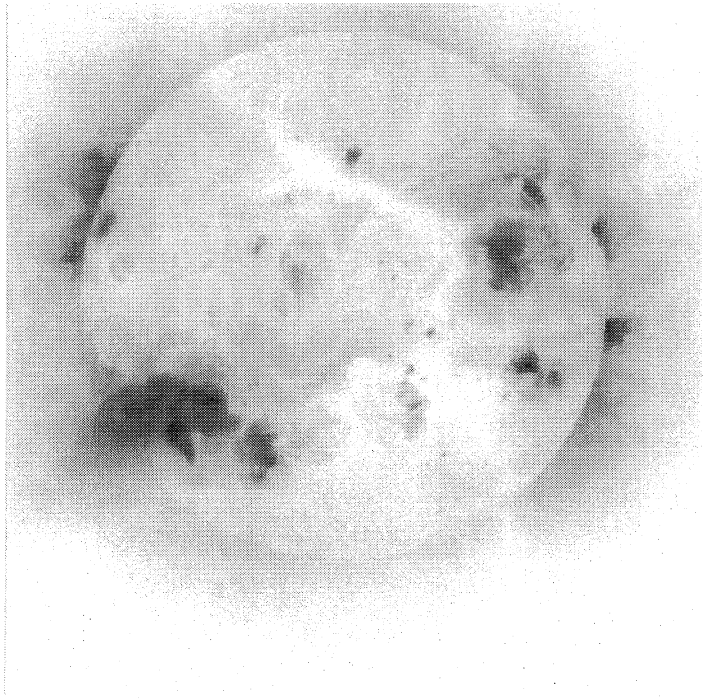
Day 22
13:15:43 UT



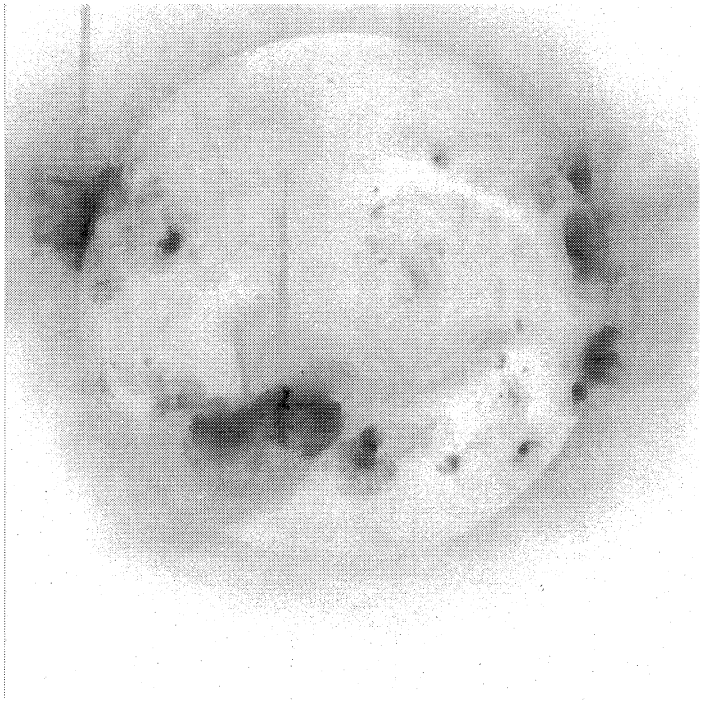
Day 24
11:43:01 UT

# YOHKOH SOFT X-RAY TELESCOPE IMAGES

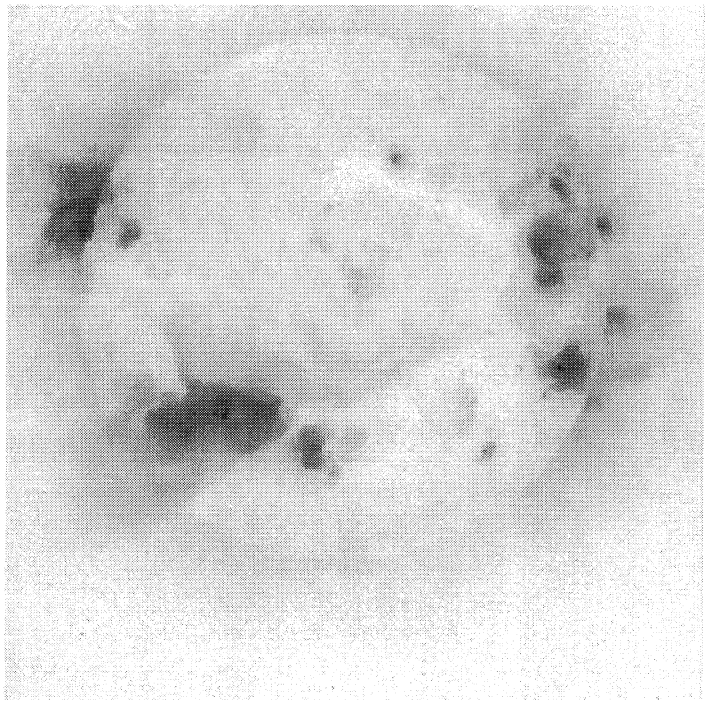
August 2001



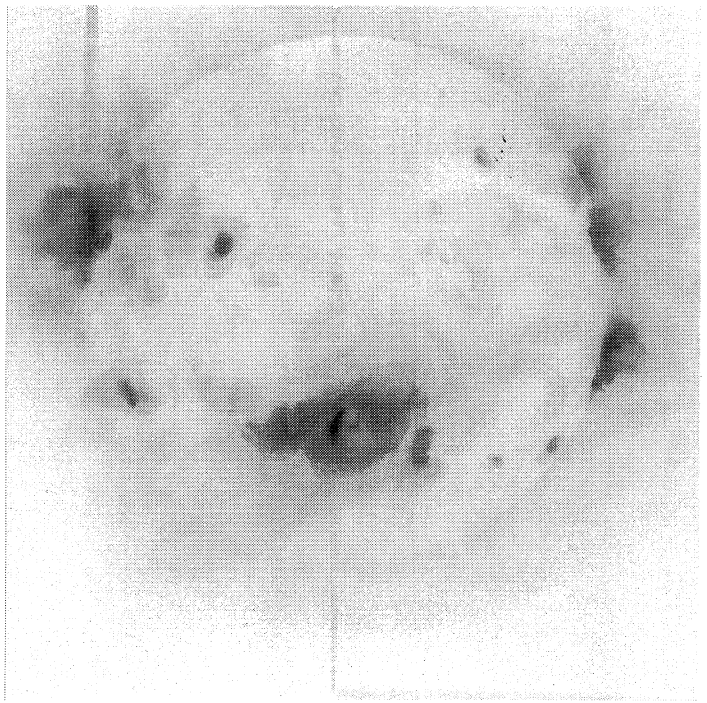
Day 25
11:44:13 UT



Day 27
11:40:28 UT



Day 26
11:41:50 UT

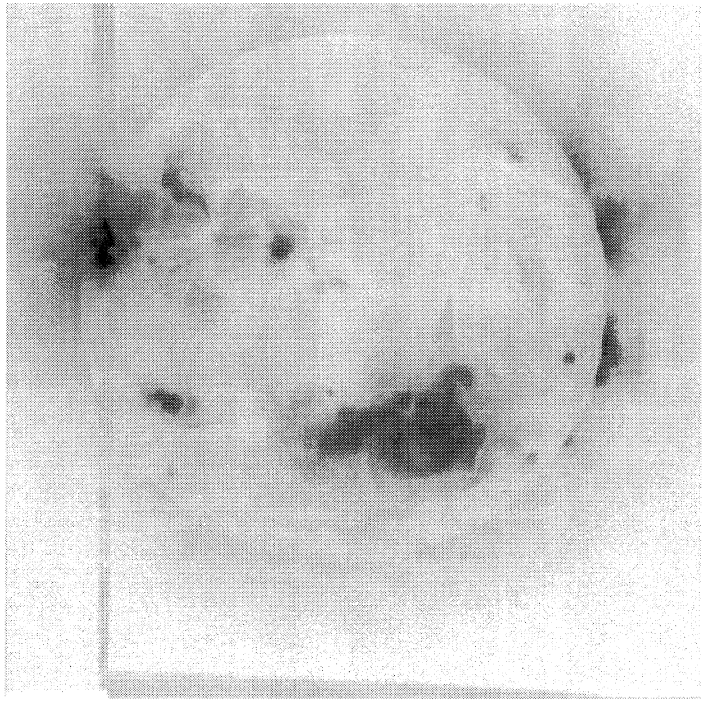


Day 28
10:48:18 UT

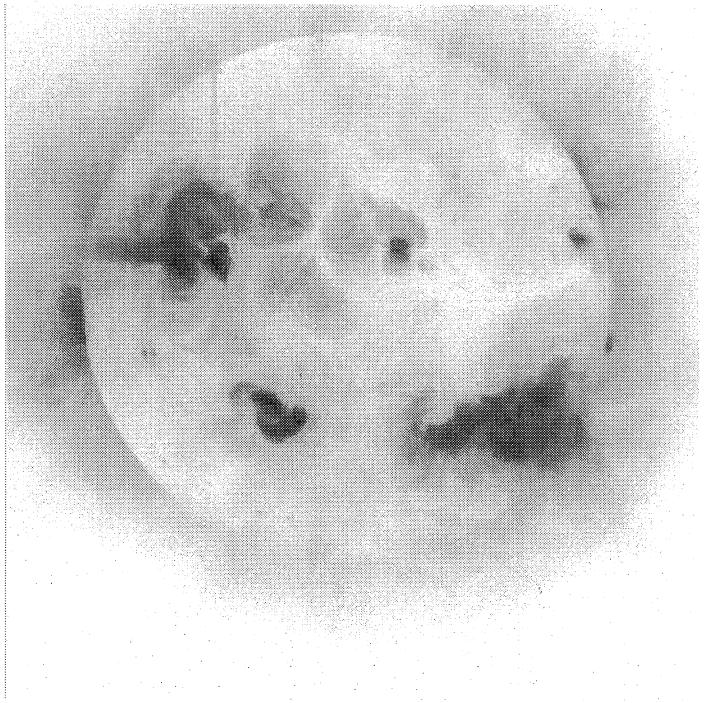
93
Aug 01

# YOHKOH SOFT X-RAY TELESCOPE IMAGES

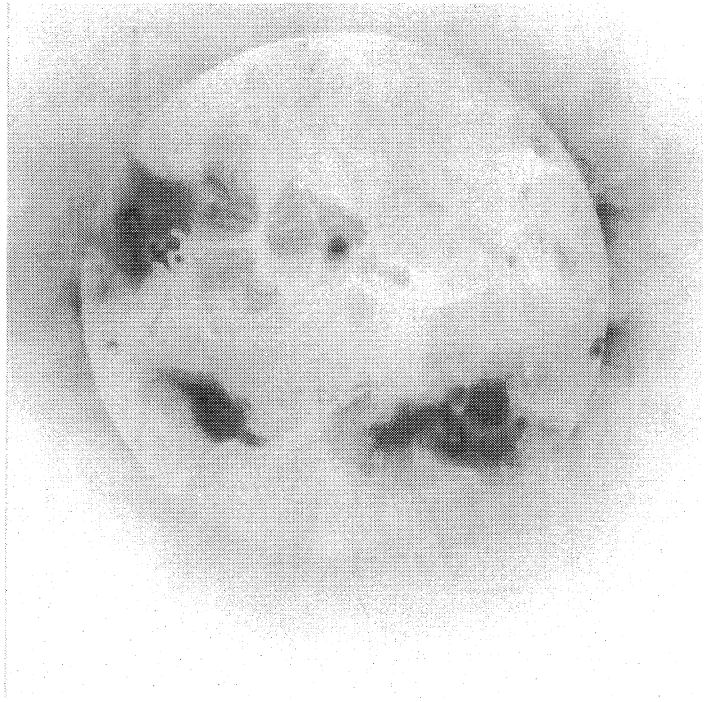
August
2001



Day 29
13:10:56 UT

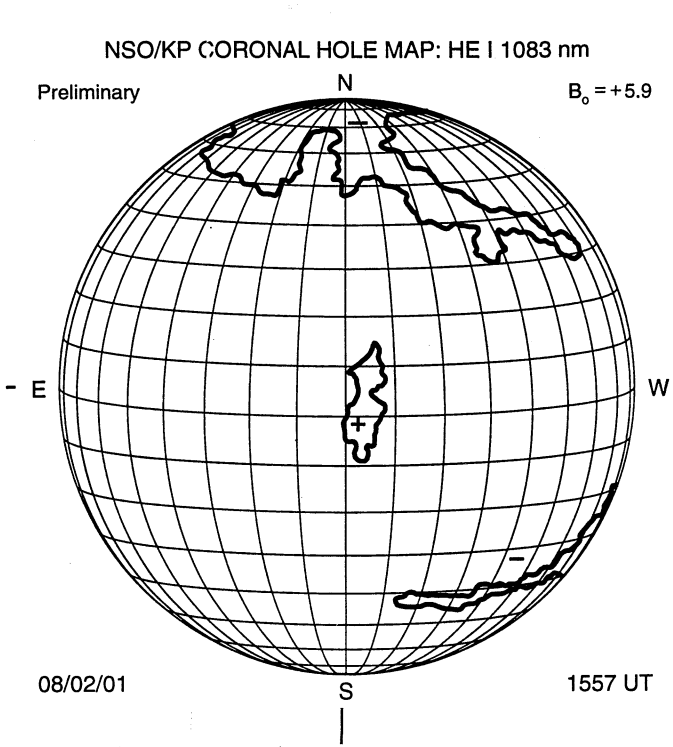


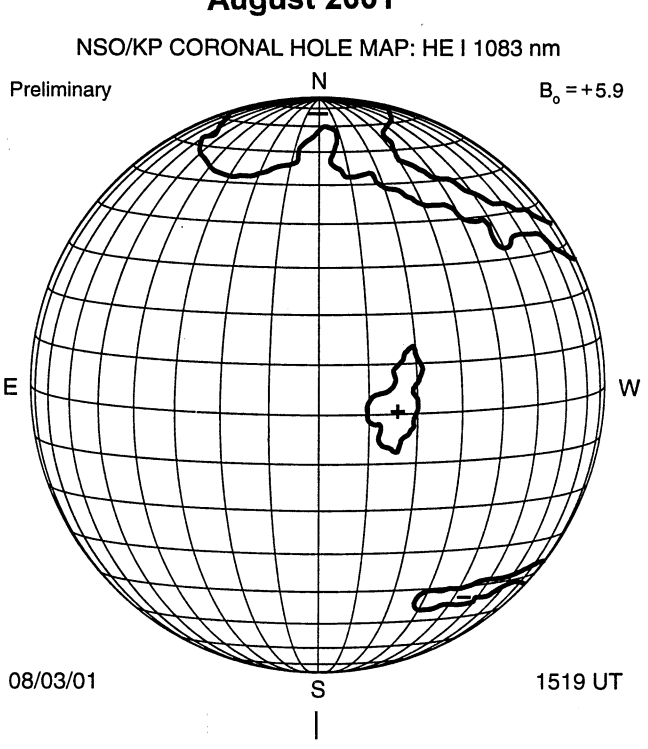
Day 31
12:07:07 UT

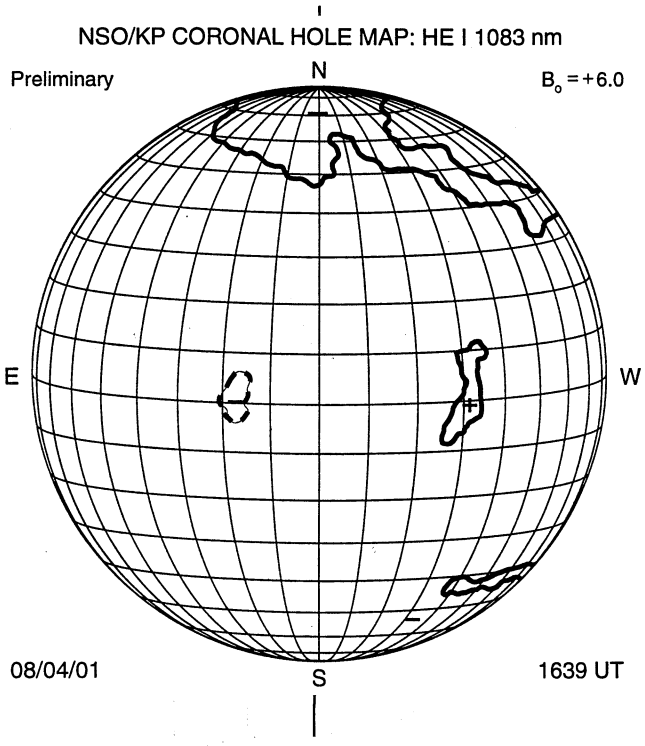


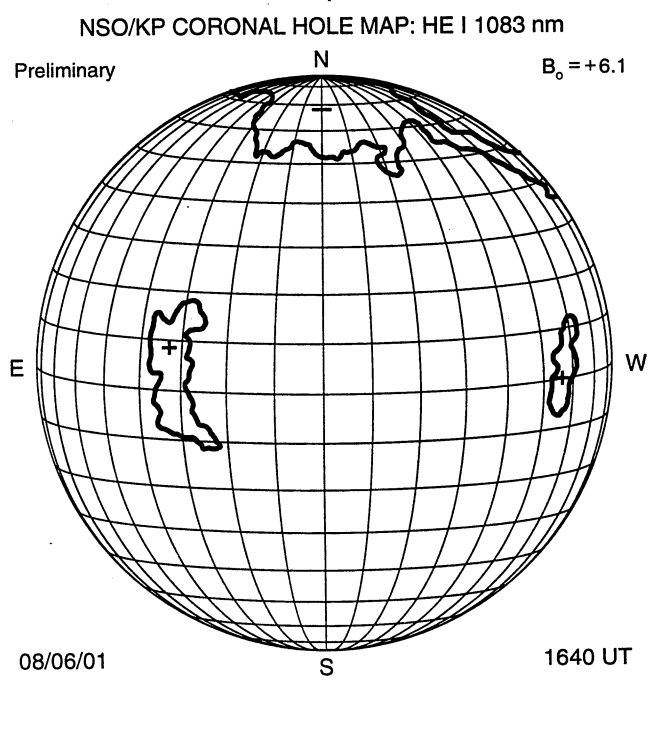
Day 30
12:09:36 UT

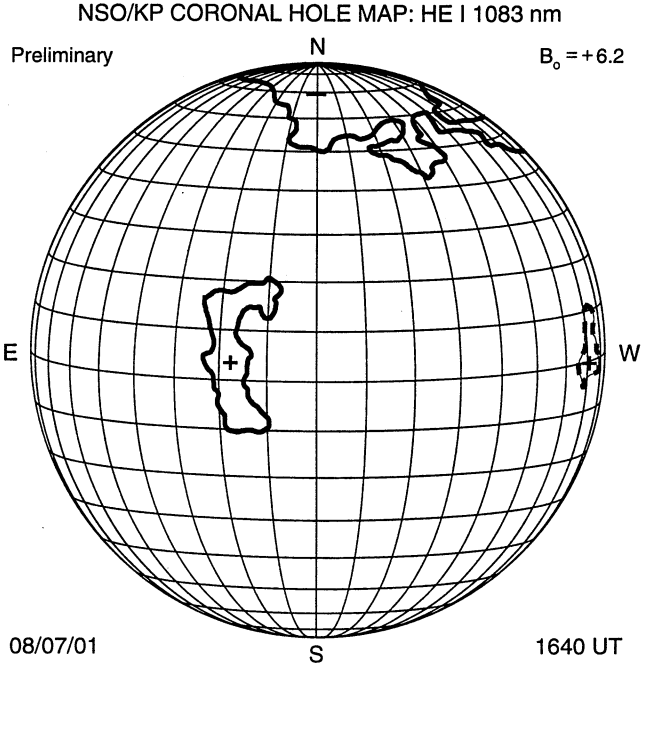
# KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
## August 2001

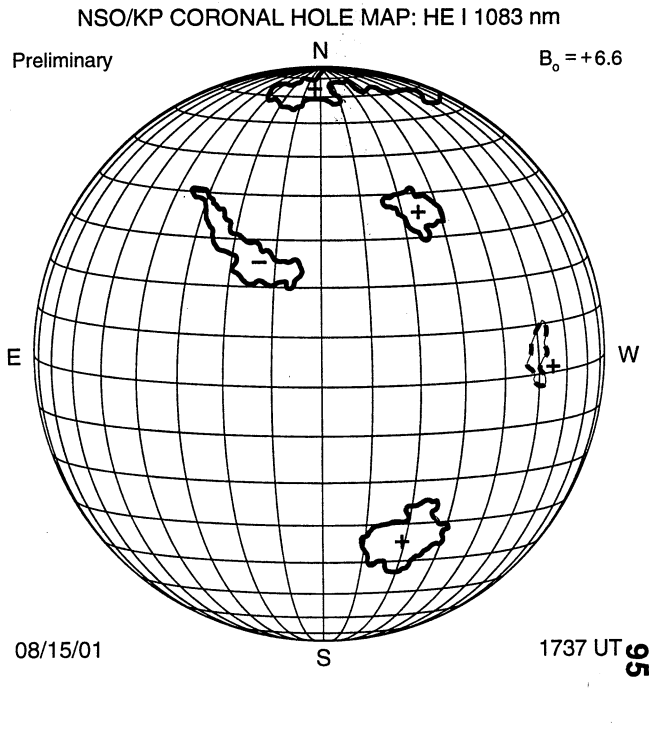


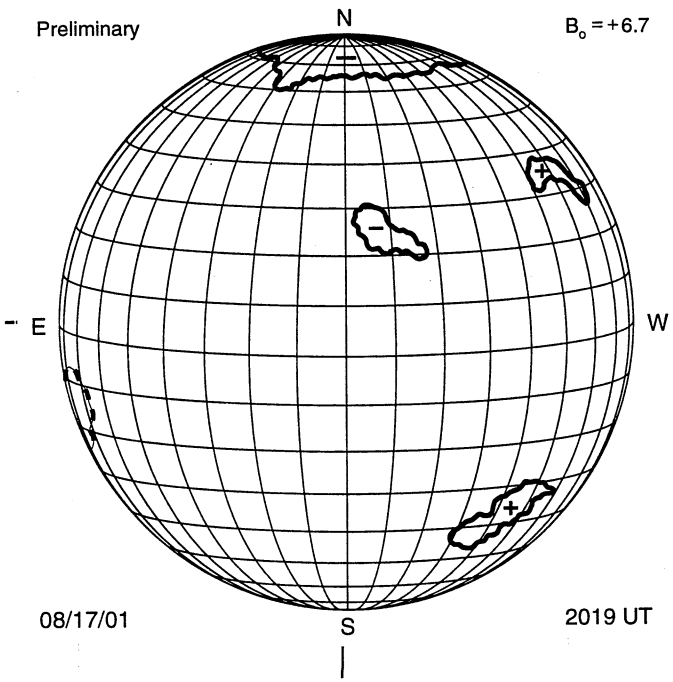



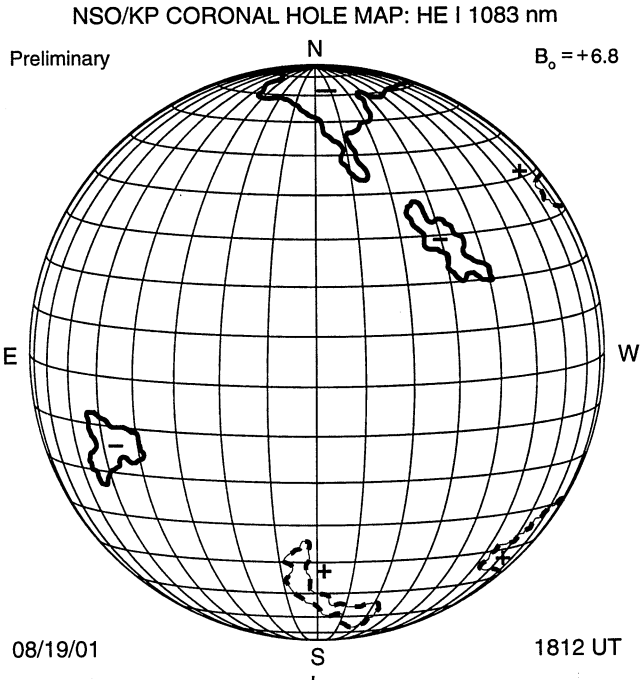



# KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
## August 2001

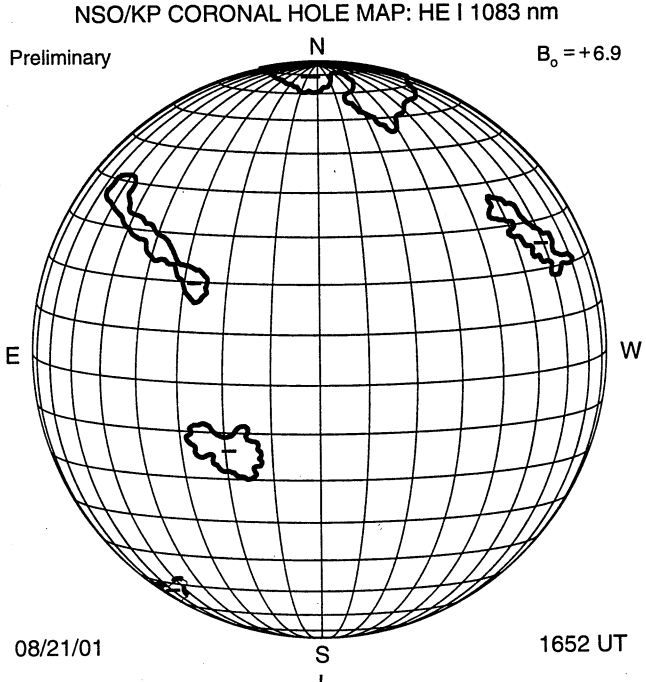
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



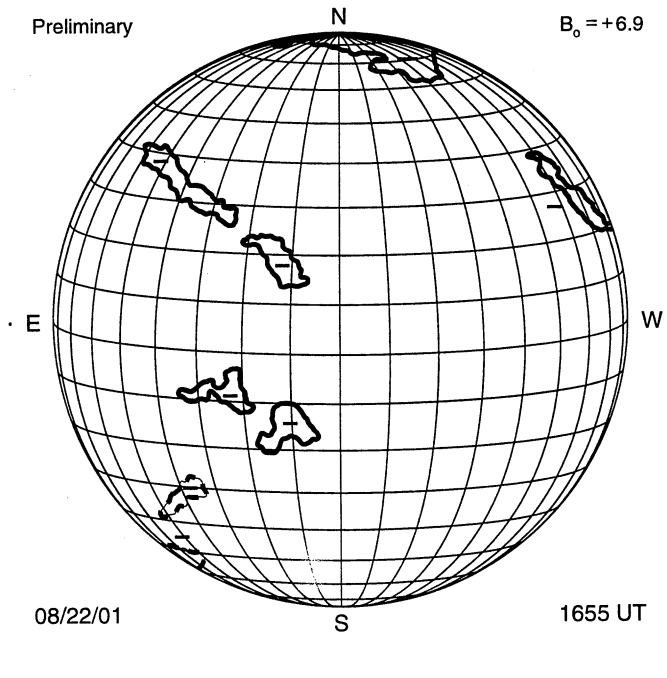

NSO/KP CORONAL HOLE MAP: HE I 1083 nm



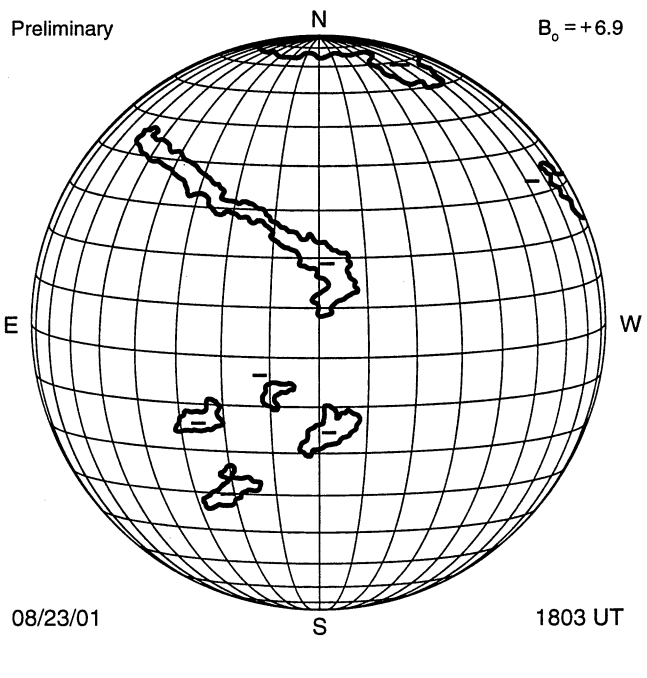

NSO/KP CORONAL HOLE MAP: HE I 1083 nm



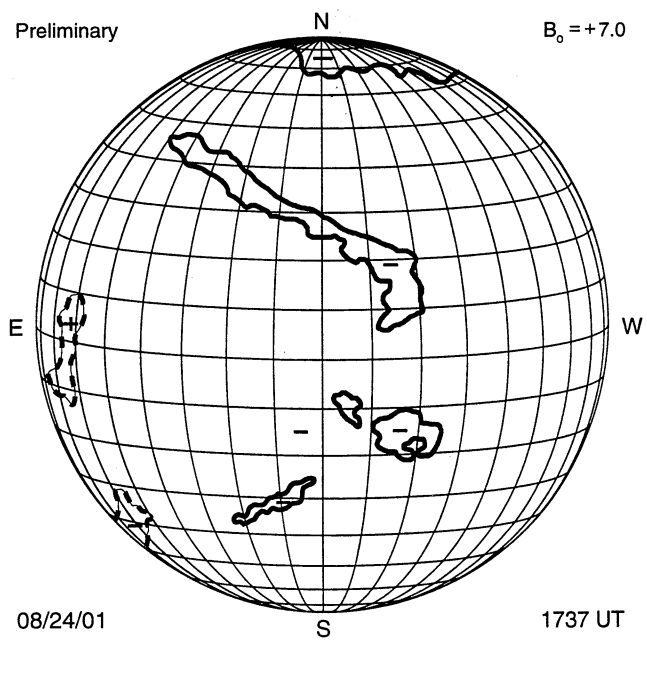

NSO/KP CORONAL HOLE MAP: HE I 1083 nm




NSO/KP CORONAL HOLE MAP: HE I 1083 nm

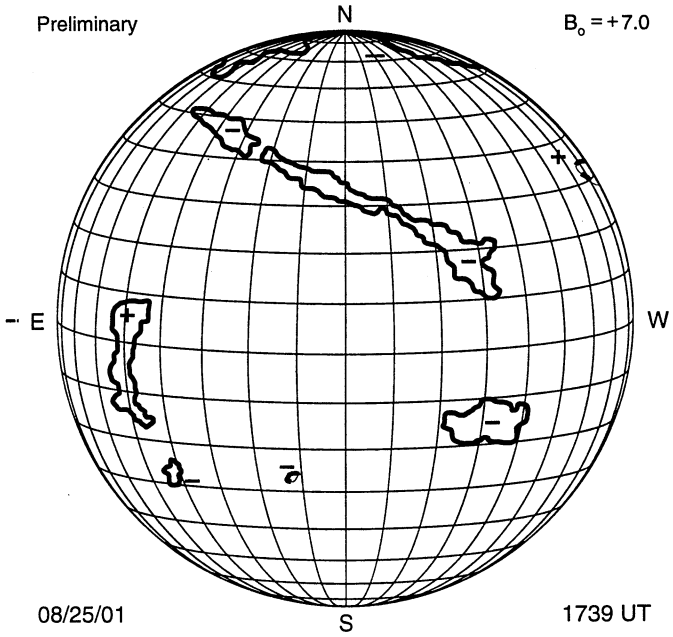



NSO/KP CORONAL HOLE MAP: HE I 1083 nm

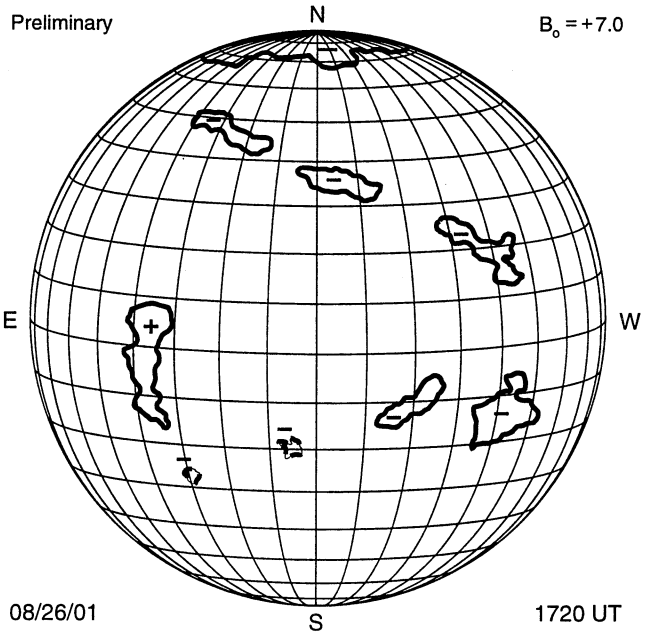


# KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
## August 2001

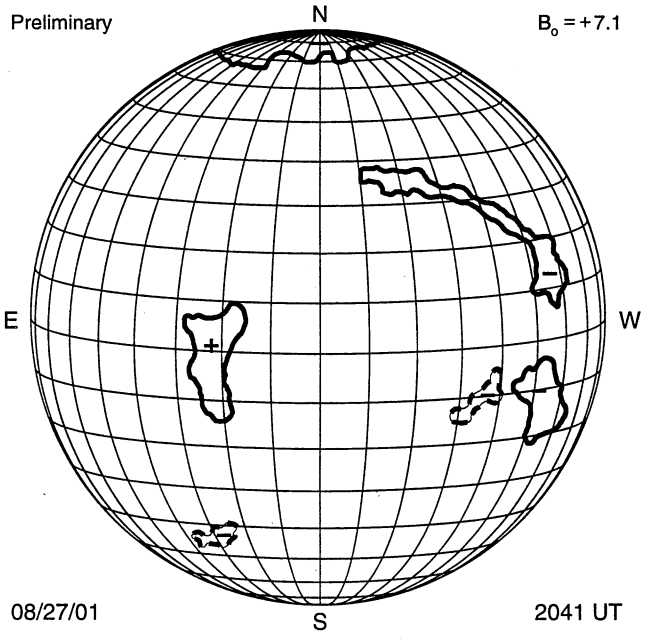
NSO/KP CORONAL HOLE MAP: HE I 1083 nm



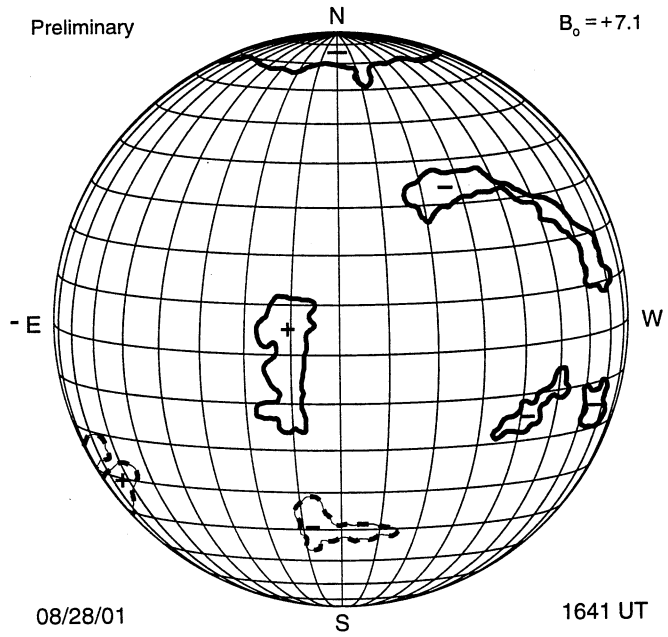

NSO/KP CORONAL HOLE MAP: HE I 1083 nm



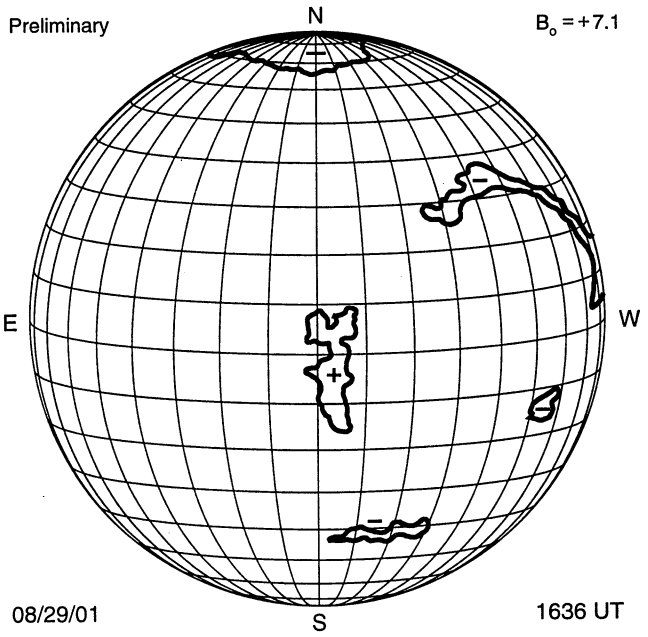

NSO/KP CORONAL HOLE MAP: HE I 1083 nm



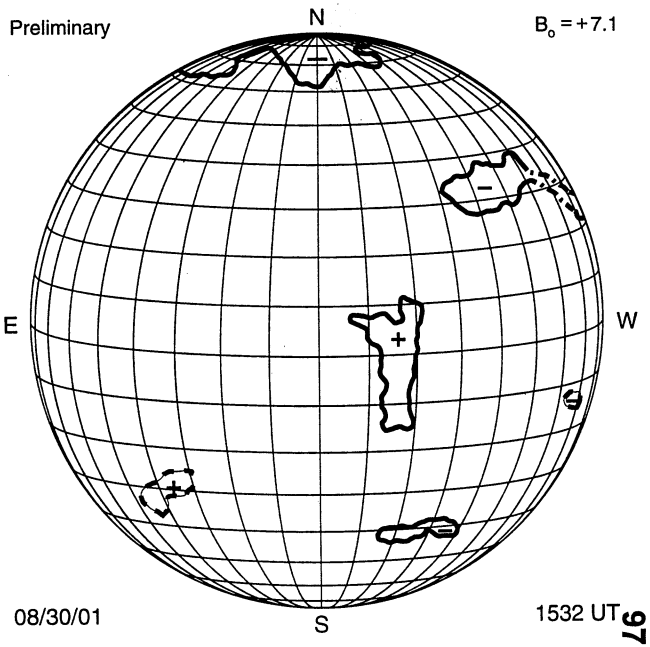

NSO/KP CORONAL HOLE MAP: HE I 1083 nm




NSO/KP CORONAL HOLE MAP: HE I 1083 nm




NSO/KP CORONAL HOLE MAP: HE I 1083 nm



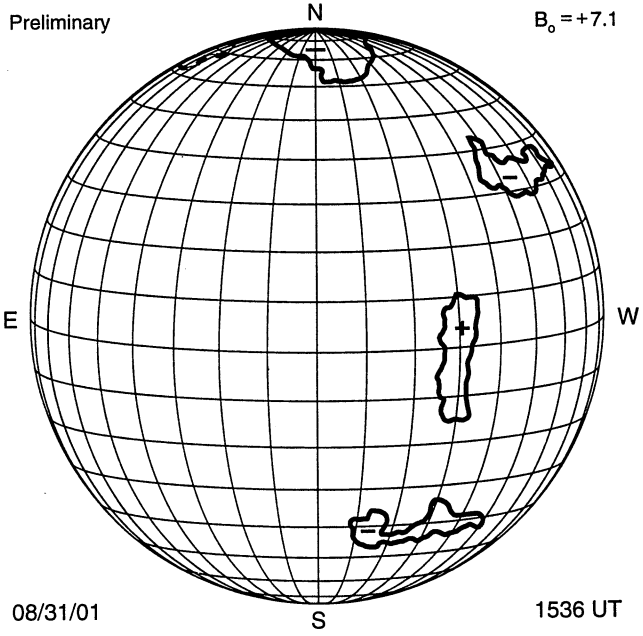
# KITT PEAK CORONAL HOLE MAPS HE I 1083 nm
## August 2001



NSO/KP CORONAL HOLE MAP: HE I 1083 nm

Preliminary

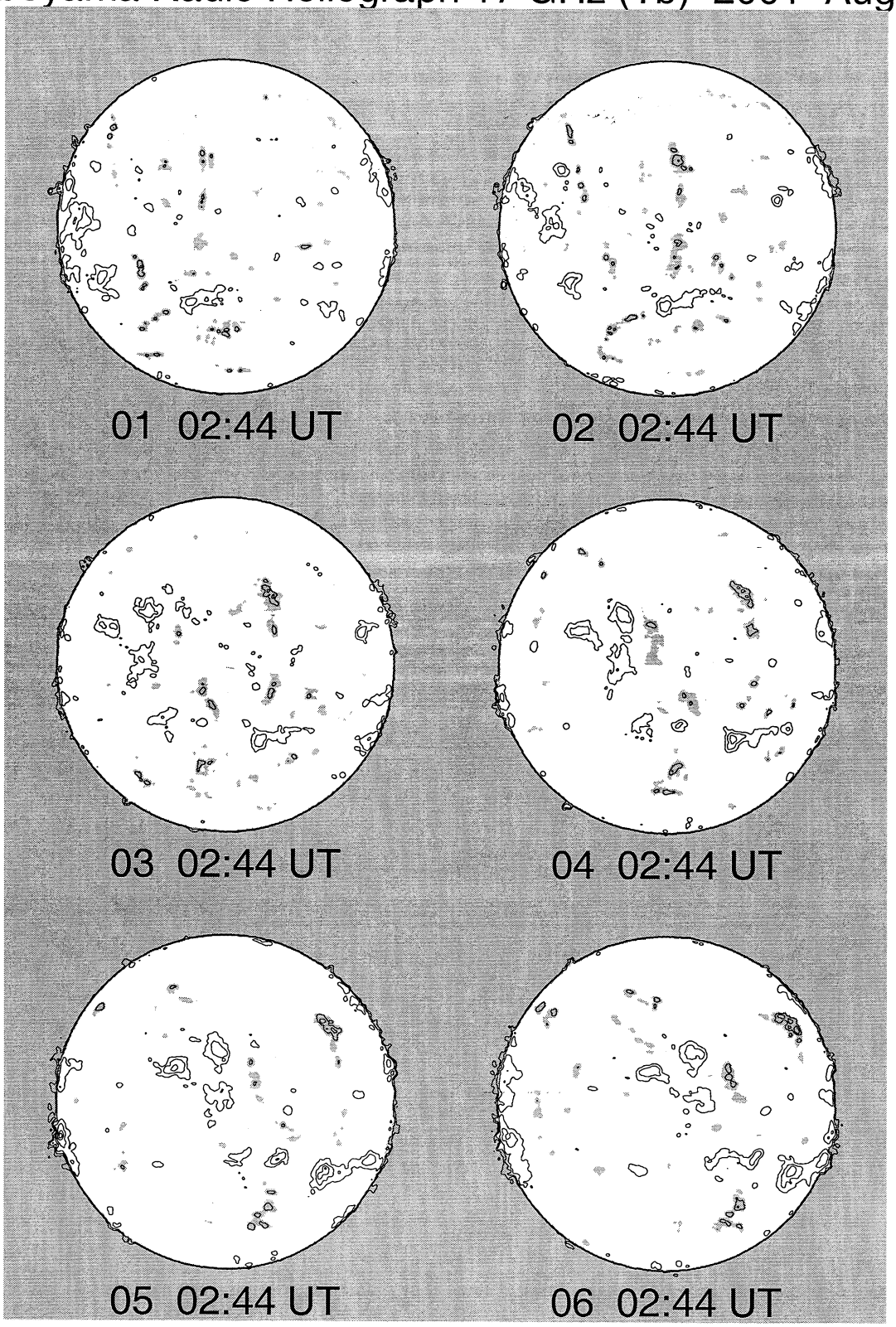
$B_o = +7.1$




08/31/01

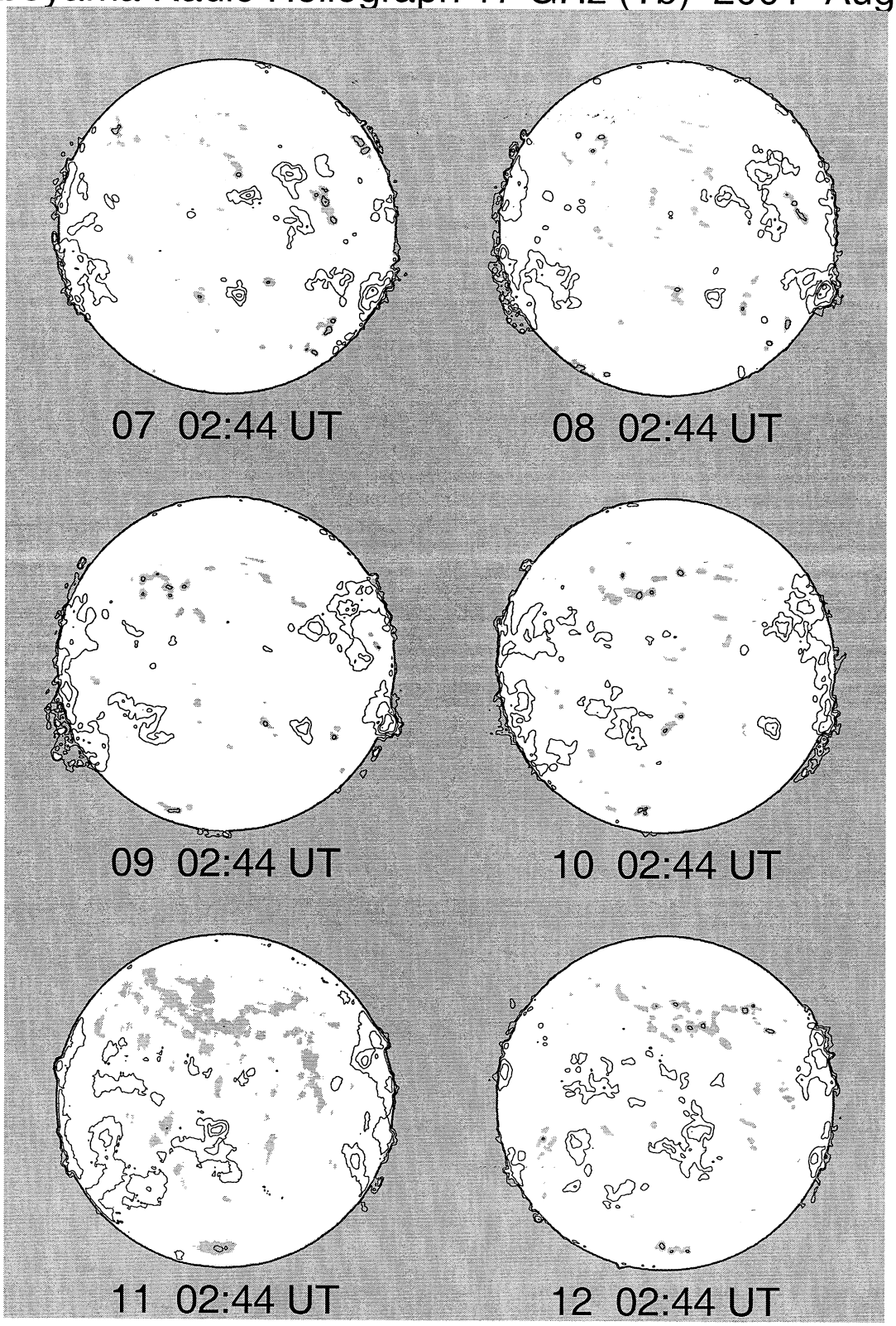
1536 UT

# Nobeyama Radio Heliograph 17 GHz (Tb) 2001 August




Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

# Nobeyama Radio Heliograph 17 GHz (Tb) 2001 August

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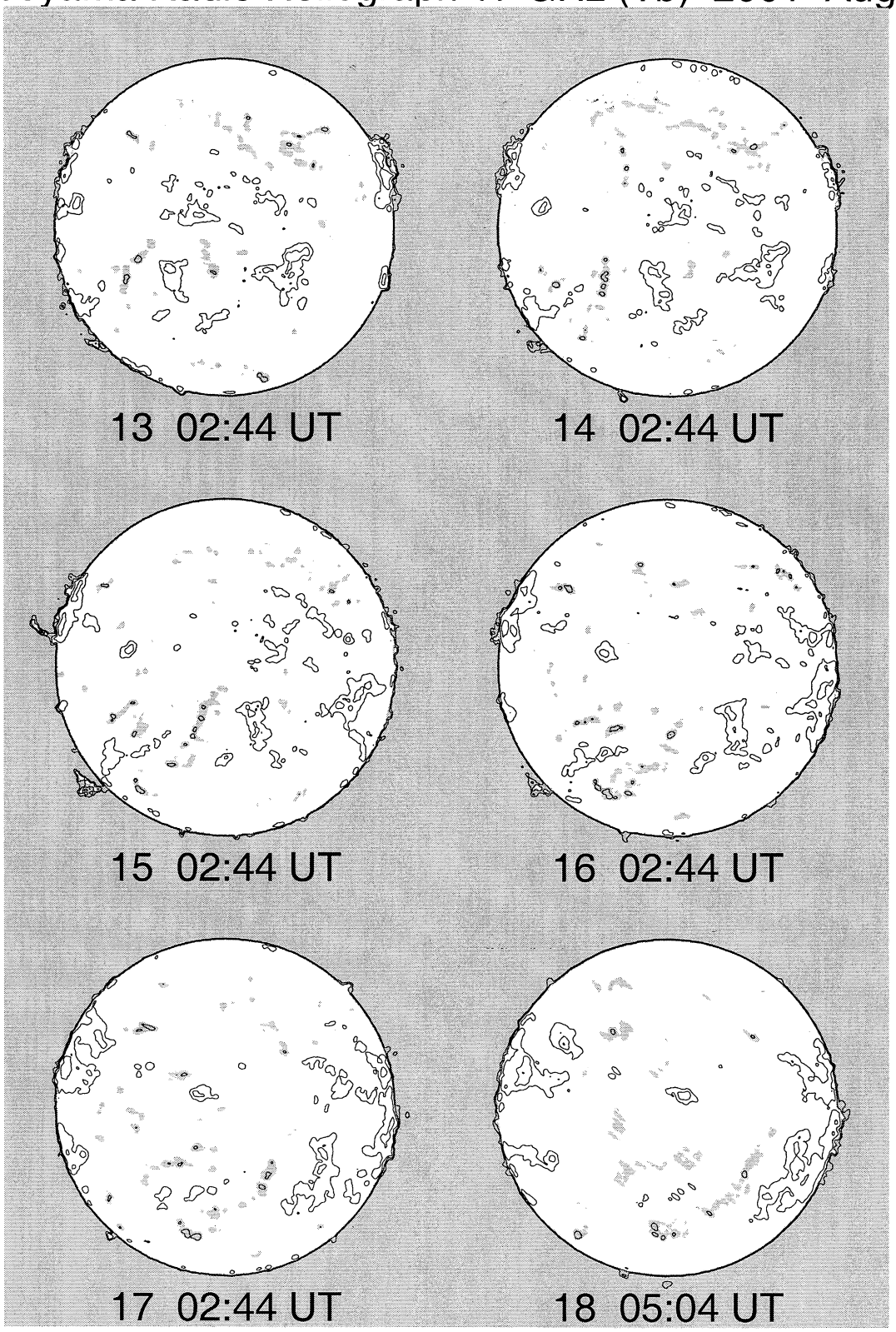
Grey level Tb <= 9,500 K

# Nobeyama Radio Heliograph 17 GHz (Tb) 2001 August

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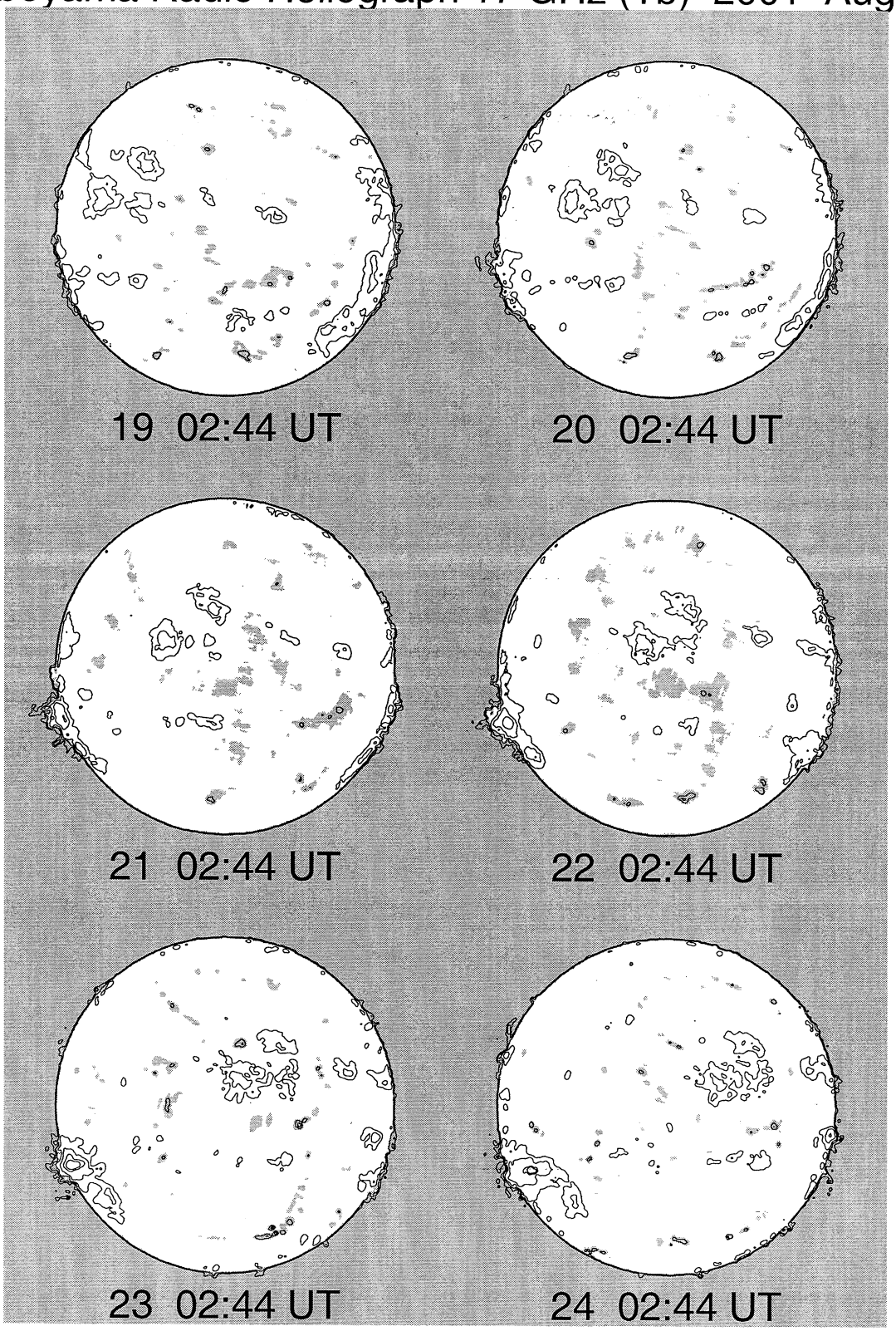
# Nobeyama Radio Heliograph 17 GHz (Tb) 2001 August




Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
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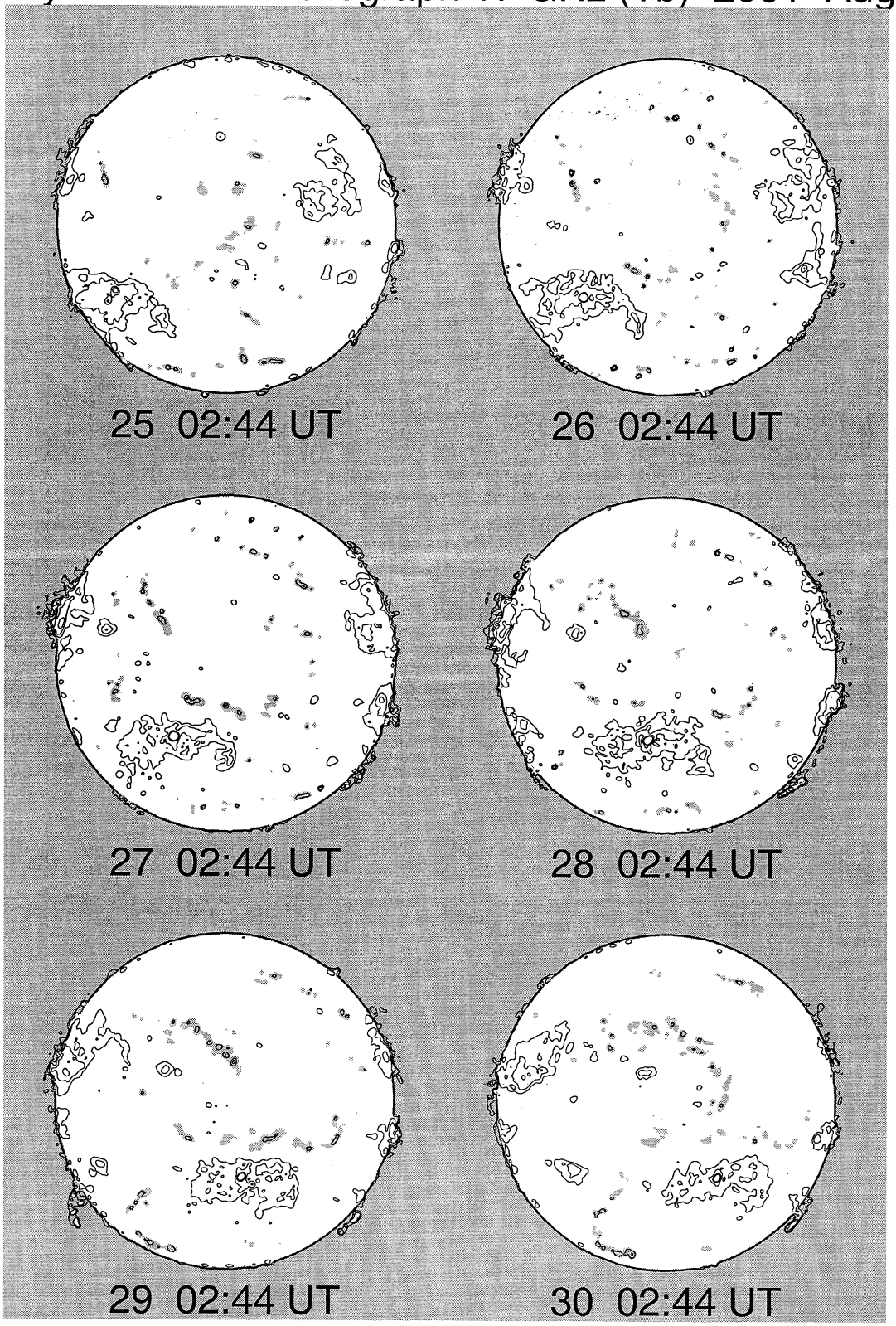
# Nobeyama Radio Heliograph 17 GHz (Tb) 2001 August

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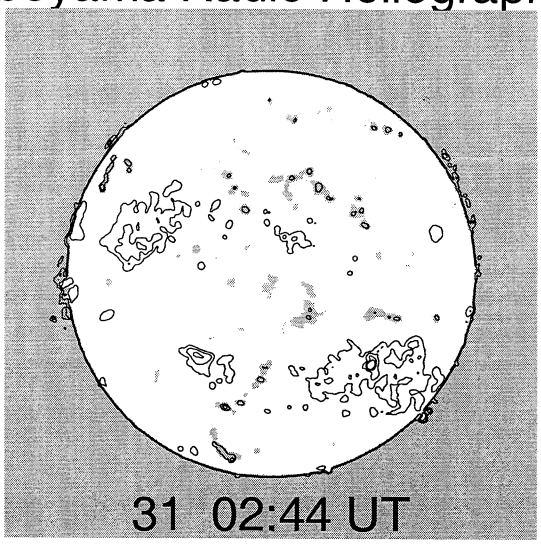
# Nobeyama Radio Heliograph 17 GHz (Tb) 2001 August




Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9555A | 30607 | MWIL | 07 26 | 1400 | N05 | E73 | 08 | 1.0 | 3 | B | | | | | |
| 9555A | | LEAR | 07 27 | 0100 | N06 | E68 | 08 | 1.1 | | B | BXO | 20 | 3 | 5 | 3 |
| 9555A | | SVTO | 07 27 | 0550 | N05 | E68 | 08 | 1.3 | | A | AXX | | 1 | | 3 |
| 9555A | | HOLL | 07 30 | 1326 | N06 | E19 | 08 | 1.0 | | A | AXX | 10 | 2 | 1 | 3 |
| 9555A | 30616 | MWIL | 07 30 | 1415 | N06 | E19 | 08 | 1.0 | 4 | (AP) | | | | | |
| 9555A | | HOLL | 07 31 | 1348 | N07 | E06 | 08 | 1.0 | | A | AXX | | 1 | | 3 |
| 9555A | 30616 | MWIL | 07 31 | 1415 | N06 | E06 | 08 | 1.0 | 3 | (AP) | | | | | |
| 9557 | | TACH | 07 26 | 0535 | S20 | E78 | 08 | 1.2 | | | HXX | 25 | 1 | 2 | 3 |
| 9557 | | SVTO | 07 26 | 0710 | S19 | E82 | 08 | 1.5 | | A | HSX | 60 | 1 | 5 | 2 |
| 9557 | | KAND | 07 26 | 0720 | S20 | E80 | 08 | 1.4 | | | HS | | 1 | 3 | 4 |
| 9557 | | KAND | 07 26 | 0720 | S20 | E80 | 08 | 1.4 | | | HS | | 1 | 3 | 4 |
| 9557 | | RAMY | 07 26 | 1241 | S18 | E80 | 08 | 1.6 | | A | HSX | 120 | 1 | 6 | 3 |
| 9557 | 30608 | MWIL | 07 26 | 1400 | S19 | E75 | 08 | 1.3 | 4 | (AP) | | | | | |
| 9557 | | HOLL | 07 26 | 1430 | S18 | E75 | 08 | 1.3 | | A | HSX | 60 | 1 | 2 | 3 |
| 9557 | | LEAR | 07 27 | 0100 | S19 | E69 | 08 | 1.3 | | A | HAX | 80 | 1 | 2 | 3 |
| 9557 | | TACH | 07 27 | 0536 | S18 | E64 | 08 | 1.1 | | | HSX | 55 | 1 | 3 | 3 |
| 9557 | | SVTO | 07 27 | 0550 | S19 | E67 | 08 | 1.3 | | A | HSX | 80 | 1 | 2 | 3 |
| 9557 | | KAND | 07 27 | 0745 | S20 | E65 | 08 | 1.3 | | | HS | | 1 | 3 | 3 |
| 9557 | | KAND | 07 27 | 0745 | S20 | E65 | 08 | 1.3 | | | HS | | 1 | 3 | 3 |
| 9557 | | RAMY | 07 27 | 1140 | S17 | E64 | 08 | 1.3 | | A | HSX | 40 | 1 | 2 | 3 |
| 9557 | 30608 | MWIL | 07 27 | 1400 | S19 | E61 | 08 | 1.2 | 5 | (BP) | | | | | |
| 9557 | | HOLL | 07 27 | 1432 | S18 | E61 | 08 | 1.2 | | A | HSX | 90 | 1 | 2 | 3 |
| 9557 | | LEAR | 07 28 | 0130 | S21 | E57 | 08 | 1.4 | | B | ESO | 40 | 2 | 11 | 1 |
| 9557 | | SVTO | 07 28 | 0454 | S21 | E60 | 08 | 1.8 | | B | ESO | 60 | 3 | 14 | 3 |
| 9557 | | TACH | 07 28 | 0717 | S20 | E56 | 08 | 1.6 | | | CSO | 65 | 3 | 8 | 2 |
| 9557 | | KAND | 07 28 | 1312 | S20 | E55 | 08 | 1.7 | | | EAO | | 6 | 15 | 3 |
| 9557 | | KAND | 07 28 | 1312 | S20 | E55 | 08 | 1.7 | | | EAO | | 6 | 15 | 3 |
| 9557 | | RAMY | 07 28 | 1325 | S18 | E48 | 08 | 1.2 | | B | DSO | 70 | 3 | 9 | 2 |
| 9557 | 30608 | MWIL | 07 28 | 1400 | S19 | E48 | 08 | 1.2 | 5 | (AP) | | | | | |
| 9557 | 30612 | MWIL | 07 28 | 1400 | S21 | E58 | 08 | 2.0 | 5 | (B ) | | | | | |
| 9557 | | HOLL | 07 28 | 1733 | S20 | E53 | 08 | 1.8 | | B | EAO | 150 | 7 | 13 | 3 |
| 9557 | | LEAR | 07 29 | 0130 | S20 | E47 | 08 | 1.6 | | BG | EAI | 100 | 9 | 14 | 2 |
| 9557 | | VORO | 07 29 | 0308 | S18 | E41 | 08 | 1.2 | | | HSX | 138 | 1 | | 2 |
| 9557 | | VORO | 07 29 | 0308 | S21 | E52 | 08 | 2.1 | | | CAI | 96 | 3 | 4 | 2 |
| 9557 | | SVTO | 07 29 | 0522 | S19 | E46 | 08 | 1.7 | | B | FAO | 140 | 5 | 16 | 3 |
| 9557 | | TACH | 07 29 | 0619 | S19 | E42 | 08 | 1.5 | | | DAI | 83 | 5 | 9 | 2 |
| 9557 | | KAND | 07 29 | 0905 | S21 | E46 | 08 | 1.9 | | | EAO | | 10 | 15 | 4 |
| 9557 | | KAND | 07 29 | 0905 | S21 | E46 | 08 | 1.9 | | | EAO | | 10 | 15 | 4 |
| 9557 | 30608 | MWIL | 07 29 | 1415 | S18 | E35 | 08 | 1.2 | 5 | (AP) | | | | | |
| 9557 | 30612 | MWIL | 07 29 | 1415 | S21 | E46 | 08 | 2.1 | 4 | (B ) | | | | | |
| 9557 | | HOLL | 07 29 | 1439 | S20 | E42 | 08 | 1.8 | | B | FAO | 140 | 13 | 16 | 3 |
| 9557 | | VORO | 07 30 | 0136 | S18 | E29 | 08 | 1.3 | | | HAX | 104 | 2 | | 2 |
| 9557 | | VORO | 07 30 | 0136 | S21 | E39 | 08 | 2.0 | | | CAI | 120 | 5 | 5 | 2 |
| 9557 | | LEAR | 07 30 | 0230 | S20 | E33 | 08 | 1.6 | | B | DAO | 120 | 9 | 13 | 2 |
| 9557 | | SVTO | 07 30 | 0520 | S19 | E33 | 08 | 1.7 | | BG | FSI | 140 | 14 | 17 | 3 |
| 9557 | | TACH | 07 30 | 0541 | S20 | E32 | 08 | 1.7 | | | CSI | 129 | 6 | 12 | 2 |
| 9557 | | KAND | 07 30 | 0835 | S20 | E31 | 08 | 1.7 | | | FSO | | 13 | 16 | 3 |
| 9557 | | KAND | 07 30 | 0835 | S20 | E31 | 08 | 1.7 | | | FSO | | 13 | 16 | 3 |
| 9557 | | HOLL | 07 30 | 1326 | S19 | E27 | 08 | 1.6 | | B | EAO | 80 | 16 | 14 | 3 |
| 9557 | 30608 | MWIL | 07 30 | 1415 | S18 | E22 | 08 | 1.3 | 5 | (AP) | | | | | |
| 9557 | 30617 | MWIL | 07 30 | 1415 | S18 | E29 | 08 | 1.8 | 4 | (B ) | | | | | |
| 9557 | 30612 | MWIL | 07 30 | 1415 | S21 | E33 | 08 | 2.1 | 4 | (B ) | | | | | |
| 9557 | | LEAR | 07 31 | 0020 | S19 | E23 | 08 | 1.8 | | BG | ESI | 100 | 15 | 14 | 3 |
| 9557 | | TACH | 07 31 | 0538 | S19 | E20 | 08 | 1.8 | | | CSI | 169 | 9 | 13 | 3 |
| 9557 | | KAND | 07 31 | 0657 | S20 | E19 | 08 | 1.7 | | | EAO | | 14 | 14 | 3 |
| 9557 | | KAND | 07 31 | 0657 | S20 | E19 | 08 | 1.7 | | | EAO | | 14 | 14 | 3 |
| 9557 | | SVTO | 07 31 | 1125 | S19 | E17 | 08 | 1.8 | | BG | EAI | 130 | 9 | 14 | 2 |
| 9557 | | RAMY | 07 31 | 1300 | S20 | E18 | 08 | 1.9 | | B | DSO | 120 | 10 | 14 | 2 |
| 9557 | | HOLL | 07 31 | 1348 | S20 | E16 | 08 | 1.8 | | B | EAI | 120 | 21 | 14 | 3 |
| 9557 | 30608 | MWIL | 07 31 | 1415 | S18 | E09 | 08 | 1.3 | 4 | (AP) | | | | | |
| 9557 | 30612 | MWIL | 07 31 | 1415 | S21 | E20 | 08 | 2.1 | 4 | (B ) | | | | | |
| 9557 | | LEAR | 08 01 | 0305 | S20 | E08 | 08 | 1.7 | | BG | EAI | 110 | 15 | 15 | 3 |
| 9557 | | TACH | 08 01 | 0628 | S18 | E04 | 08 | 1.6 | | | BRO | 17 | 4 | 9 | 2 |
| 9557 | | SVTO | 08 01 | 0713 | S20 | E06 | 08 | 1.7 | | BG | EAO | 50 | 14 | 14 | 2 |
| 9557 | | KAND | 08 01 | 0745 | S19 | E06 | 08 | 1.8 | | | CAO | | 8 | 14 | 3 |
| 9557 | | RAMY | 08 01 | 1125 | S19 | E07 | 08 | 2.0 | | B | ESO | 60 | 11 | 13 | 3 |
| 9557 | | HOLL | 08 01 | 1430 | S18 | E03 | 08 | 1.8 | | B | ESO | 80 | 9 | 13 | 2 |
| 9557 | 30608 | MWIL | 08 01 | 1500 | S18 | W04 | 08 | 1.3 | 4 | (AP) | | | | | |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9557 | 30612 | MWIL | 08 | 01 | 1500 | S21 | E06 | 08 | 2.1 | 4 | (B ) | | | | | |
| 9557 | | LEAR | 08 | 02 | 0030 | S20 | W03 | 08 | 1.8 | | B | EAO | 60 | 10 | 14 | 2 |
| 9557 | | SVTO | 08 | 02 | 0620 | S21 | W06 | 08 | 1.8 | | B | ESO | 80 | 12 | 15 | 2 |
| 9557 | | TACH | 08 | 02 | 0640 | S20 | W07 | 08 | 1.7 | | | BRI | 26 | 5 | 13 | 3 |
| 9557 | | RAMY | 08 | 02 | 1205 | S21 | W08 | 08 | 1.9 | | B | ESO | 30 | 10 | 12 | 2 |
| 9557 | | HOLL | 08 | 02 | 1430 | S20 | W11 | 08 | 1.8 | | B | ESO | 130 | 21 | 15 | 4 |
| 9557 | 30608 | MWIL | 08 | 02 | 1500 | S18 | W17 | 08 | 1.3 | 4 | (AP) | | | | | |
| 9557 | 30612 | MWIL | 08 | 02 | 1500 | S21 | W07 | 08 | 2.1 | 5 | (B ) | | | | | |
| 9557 | | VORO | 08 | 02 | 2341 | S19 | W22 | 08 | 1.3 | | | AXX | 15 | 1 | | 2 |
| 9557 | | VORO | 08 | 02 | 2341 | S22 | W10 | 08 | 2.2 | | | HAX | 37 | 5 | 2 | 2 |
| 9557 | | LEAR | 08 | 03 | 0130 | S20 | W18 | 08 | 1.7 | | B | ESO | 30 | 13 | 13 | 3 |
| 9557 | | TACH | 08 | 03 | 0457 | S20 | W18 | 08 | 1.8 | | | CAI | 83 | 8 | 13 | 3 |
| 9557 | | SVTO | 08 | 03 | 0555 | S21 | W18 | 08 | 1.9 | | B | EAI | 60 | 15 | 14 | 3 |
| 9557 | | KAND | 08 | 03 | 0650 | S20 | W19 | 08 | 1.8 | | | CAO | | 9 | 17 | 4 |
| 9557 | | RAMY | 08 | 03 | 1218 | S22 | W17 | 08 | 2.2 | | B | DSO | 30 | 13 | 6 | 3 |
| 9557 | 30608 | MWIL | 08 | 03 | 1500 | S18 | W30 | 08 | 1.3 | 3 | (AP) | | | | | |
| 9557 | 30612 | MWIL | 08 | 03 | 1500 | S20 | W19 | 08 | 2.2 | 5 | (B ) | | | | | |
| 9557 | | HOLL | 08 | 03 | 1500 | S21 | W23 | 08 | 1.9 | | B | EAO | 70 | 14 | 13 | 3 |
| 9557 | | VORO | 08 | 03 | 2145 | S23 | W23 | 08 | 2.1 | | | DAI | 269 | 12 | 4 | 2 |
| 9557 | | LEAR | 08 | 04 | 0100 | S20 | W26 | 08 | 2.0 | | B | DAI | 80 | 23 | 8 | 4 |
| 9557 | | SVTO | 08 | 04 | 0545 | S22 | W26 | 08 | 2.2 | | B | DAO | 70 | 15 | 8 | 3 |
| 9557 | | TACH | 08 | 04 | 0550 | S20 | W25 | 08 | 2.3 | | | DAI | 323 | 8 | 2 | 3 |
| 9557 | | KAND | 08 | 04 | 0815 | S19 | W28 | 08 | 2.2 | | | DKI | | 17 | 7 | 3 |
| 9557 | | RAMY | 08 | 04 | 1205 | S21 | W29 | 08 | 2.3 | | B | DKI | 540 | 11 | 5 | 3 |
| 9557 | 30612 | MWIL | 08 | 04 | 1430 | S20 | W32 | 08 | 2.1 | 5 | (B ) | | | | | |
| 9557 | | HOLL | 08 | 04 | 1745 | S21 | W34 | 08 | 2.1 | | B | DKI | 480 | 27 | 6 | 3 |
| 9557 | | LEAR | 08 | 05 | 0155 | S20 | W39 | 08 | 2.1 | | B | DKI | 500 | 30 | 8 | 3 |
| 9557 | | TACH | 08 | 05 | 0443 | S20 | W38 | 08 | 2.3 | | | DKO | 852 | 9 | 3 | 3 |
| 9557 | | SVTO | 08 | 05 | 0815 | S22 | W43 | 08 | 2.0 | | BG | DKO | 450 | 23 | 9 | 3 |
| 9557 | | KAND | 08 | 05 | 0840 | S19 | W40 | 08 | 2.3 | | | DKI | | 13 | 6 | 2 |
| 9557 | | RAMY | 08 | 05 | 1235 | S22 | W43 | 08 | 2.2 | | B | DKI | 840 | 12 | 8 | 2 |
| 9557 | 30612 | MWIL | 08 | 05 | 1500 | S20 | W45 | 08 | 2.2 | 5 | (BD) | | | | | |
| 9557 | | HOLL | 08 | 05 | 1545 | S16 | W47 | 08 | 2.1 | | BG | DKI | 560 | 16 | 7 | 3 |
| 9557 | | VORO | 08 | 05 | 2253 | S20 | W48 | 08 | 2.3 | | | HKX | 599 | 21 | 3 | 3 |
| 9557 | | LEAR | 08 | 06 | 0035 | S18 | W52 | 08 | 2.1 | | BG | DKI | 490 | 16 | 7 | 1 |
| 9557 | | TACH | 08 | 06 | 0515 | S20 | W52 | 08 | 2.2 | | | DKO | 1300 | 8 | 2 | 4 |
| 9557 | | SVTO | 08 | 06 | 0534 | S21 | W54 | 08 | 2.1 | | BG | DKI | 570 | 11 | 8 | 3 |
| 9557 | | KAND | 08 | 06 | 0830 | S19 | W55 | 08 | 2.1 | | | DKO | | 12 | 8 | 3 |
| 9557 | | RAMY | 08 | 06 | 1150 | S21 | W57 | 08 | 2.1 | | BG | D I | 500 | 10 | 7 | 2 |
| 9557 | | HOLL | 08 | 06 | 1415 | S18 | W61 | 08 | 1.9 | | BG | DKI | 570 | 24 | 8 | 3 |
| 9557 | 30612 | MWIL | 08 | 06 | 1445 | S20 | W58 | 08 | 2.2 | 5 | (BD) | | | | | |
| 9557 | | LEAR | 08 | 07 | 0145 | S18 | W66 | 08 | 2.0 | | BG | DKI | 600 | 17 | 8 | 4 |
| 9557 | | VORO | 08 | 07 | 0257 | S20 | W63 | 08 | 2.3 | | | HKX | 723 | 10 | 3 | 3 |
| 9557 | | TACH | 08 | 07 | 0524 | S20 | W66 | 08 | 2.2 | | | HK | 582 | 8 | 5 | 3 |
| 9557 | | SVTO | 08 | 07 | 0544 | S22 | W67 | 08 | 2.1 | | BG | DKI | 470 | 8 | 9 | 3 |
| 9557 | | KAND | 08 | 07 | 0700 | S19 | W68 | 08 | 2.1 | | | HK | | 7 | 7 | 4 |
| 9557 | | RAMY | 08 | 07 | 1220 | S22 | W73 | 08 | 1.9 | | BG | EHI | 780 | 9 | 12 | 3 |
| 9557 | 30612 | MWIL | 08 | 07 | 1430 | S20 | W70 | 08 | 2.2 | 5 | (BD) | | | | | |
| 9557 | | HOLL | 08 | 07 | 1645 | S20 | W75 | 08 | 2.0 | | A | HKX | 570 | 11 | 11 | 3 |
| 9557 | | LEAR | 08 | 08 | 0020 | S20 | W78 | 08 | 2.0 | | BG | DKI | 450 | 15 | 8 | 2 |
| 9557 | | TACH | 08 | 08 | 0524 | S20 | W76 | 08 | 2.4 | | | DAO | 110 | 3 | 3 | 3 |
| 9557 | | SVTO | 08 | 08 | 0540 | S22 | W85 | 08 | 1.7 | | B | DAI | 150 | 8 | 4 | 3 |
| 9557 | | KAND | 08 | 08 | 0845 | S19 | W80 | 08 | 2.2 | | | DAO | | 2 | 3 | 4 |
| 9557 | 30612 | MWIL | 08 | 08 | 1430 | S21 | W80 | 08 | 2.5 | 5 | BD | | | | | |
| 9555B | | LEAR | 07 | 29 | 0130 | N18 | E58 | 08 | 2.5 | | B | CSO | 30 | 2 | 3 | 2 |
| 9555B | | SVTO | 07 | 29 | 0522 | N19 | E56 | 08 | 2.5 | | A | AXX | | 1 | | 3 |
| 9555B | | KAND | 07 | 29 | 0905 | N17 | E54 | 08 | 2.5 | | | AX | | 1 | | 4 |
| 9555B | 30613 | MWIL | 07 | 29 | 1415 | N19 | E50 | 08 | 2.4 | 3 | (AP) | | | | | |
| 9555B | | HOLL | 07 | 29 | 1439 | N18 | E50 | 08 | 2.4 | | A | AXX | | 1 | | 3 |
| 9565 | | LEAR | 08 | 01 | 0305 | N03 | E33 | 08 | 3.6 | | B | BXO | 10 | 2 | 3 | 3 |
| 9565 | | SVTO | 08 | 01 | 0713 | N04 | E32 | 08 | 3.7 | | A | AXX | | 2 | 2 | 2 |
| 9565 | | RAMY | 08 | 01 | 1125 | N06 | E27 | 08 | 3.5 | | B | BXO | 10 | 3 | 3 | 3 |
| 9565 | 30620 | MWIL | 08 | 01 | 1500 | N05 | E29 | 08 | 3.8 | 3 | (AP) | | | | | |
| 9565 | 30626 | MWIL | 08 | 04 | 1430 | N03 | W14 | 08 | 3.5 | 3 | (B ) | | | | | |
| 9565 | | HOLL | 08 | 04 | 1745 | N03 | W16 | 08 | 3.5 | | B | BXO | 10 | 4 | 3 | 3 |
| 9565 | | LEAR | 08 | 05 | 0155 | N04 | W22 | 08 | 3.4 | | A | AXX | | 1 | | 3 |
| 9565 | | TACH | 08 | 05 | 0443 | N04 | W24 | 08 | 3.4 | | | AXX | 5 | 1 | 1 | 3 |

# S U N S P O T  G R O U P S
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9565 | | SVTO | 08 | 05 | 0815 | N03 | W27 | 08 | 3.3 | | A | AXX | | 1 | | 3 |
| 9565 | | KAND | 08 | 05 | 0840 | N04 | W26 | 08 | 3.4 | | | AX | | 1 | | 2 |
| 9565 | | RAMY | 08 | 05 | 1235 | N03 | W28 | 08 | 3.4 | | A | AXX | 10 | 1 | | 2 |
| 9565 | 30626 | MWIL | 08 | 05 | 1500 | N03 | W30 | 08 | 3.4 | 3 | (AP) | | | | | |
| 9565A | 30627 | MWIL | 08 | 05 | 1500 | S24 | W28 | 08 | 3.5 | 2 | (B ) | | | | | |
| 9567 | | TACH | 08 | 01 | 0628 | S11 | E41 | 08 | 4.3 | | | AXX | 30 | 1 | 1 | 2 |
| 9567 | | TACH | 08 | 02 | 0640 | S10 | E27 | 08 | 4.3 | | | HSX | 50 | 1 | 1 | 3 |
| 9567 | | TACH | 08 | 03 | 0457 | S12 | E11 | 08 | 4.0 | | | BRI | 50 | 7 | 7 | 3 |
| 9567 | | SVTO | 08 | 03 | 0555 | S15 | E07 | 08 | 3.8 | | B | CRO | 20 | 5 | 4 | 3 |
| 9567 | | KAND | 08 | 03 | 0650 | S15 | E05 | 08 | 3.7 | | | DSO | | 7 | 4 | 4 |
| 9567 | | RAMY | 08 | 03 | 1218 | S14 | E04 | 08 | 3.8 | | B | DSO | 20 | 8 | 4 | 3 |
| 9567 | | HOLL | 08 | 03 | 1500 | S15 | E02 | 08 | 3.8 | | B | DAO | 100 | 7 | 3 | 3 |
| 9567 | 30624 | MWIL | 08 | 03 | 1500 | S15 | E02 | 08 | 3.8 | 5 | (BG) | | | | | |
| 9567 | | LEAR | 08 | 04 | 0100 | S15 | W04 | 08 | 3.7 | | B | DAO | 50 | 8 | 5 | 4 |
| 9567 | | SVTO | 08 | 04 | 0545 | S15 | W06 | 08 | 3.8 | | B | DAO | 30 | 8 | 6 | 3 |
| 9567 | | TACH | 08 | 04 | 0550 | S13 | W04 | 08 | 3.9 | | | DAI | 110 | 5 | 9 | 3 |
| 9567 | | KAND | 08 | 04 | 0815 | S14 | W08 | 08 | 3.7 | | | CAI | | 10 | 4 | 3 |
| 9567 | | RAMY | 08 | 04 | 1205 | S15 | W10 | 08 | 3.7 | | B | DSO | 50 | 5 | 4 | 3 |
| 9567 | 30624 | MWIL | 08 | 04 | 1430 | S15 | W12 | 08 | 3.7 | 4 | (B ) | | | | | |
| 9567 | | HOLL | 08 | 04 | 1745 | S15 | W14 | 08 | 3.7 | | B | CAO | 30 | 12 | 4 | 3 |
| 9567 | | LEAR | 08 | 05 | 0155 | S15 | W19 | 08 | 3.6 | | B | DRI | 50 | 21 | 5 | 3 |
| 9567 | | TACH | 08 | 05 | 0443 | S12 | W16 | 08 | 4.0 | | | CAI | 70 | 11 | 11 | 3 |
| 9567 | | SVTO | 08 | 05 | 0815 | S16 | W22 | 08 | 3.7 | | B | DAO | 60 | 15 | 6 | 3 |
| 9567 | | KAND | 08 | 05 | 0840 | S14 | W22 | 08 | 3.7 | | | CRI | | 12 | 5 | 2 |
| 9567 | | RAMY | 08 | 05 | 1235 | S16 | W23 | 08 | 3.8 | | B | DAO | 70 | 8 | 6 | 2 |
| 9567 | 30624 | MWIL | 08 | 05 | 1500 | S15 | W26 | 08 | 3.6 | 5 | (B ) | | | | | |
| 9567 | | HOLL | 08 | 05 | 1545 | S11 | W30 | 08 | 3.4 | | B | DAO | 70 | 11 | 6 | 3 |
| 9567 | | VORO | 08 | 05 | 2253 | S15 | W30 | 08 | 3.7 | | | BXI | 65 | 11 | 6 | 3 |
| 9567 | | LEAR | 08 | 06 | 0035 | S15 | W33 | 08 | 3.5 | | B | DAO | 60 | 9 | 6 | 1 |
| 9567 | | TACH | 08 | 06 | 0515 | S11 | W31 | 08 | 3.9 | | | CAI | 108 | 9 | 11 | 4 |
| 9567 | | SVTO | 08 | 06 | 0534 | S14 | W34 | 08 | 3.7 | | B | DSO | 100 | 10 | 8 | 3 |
| 9567 | | KAND | 08 | 06 | 0830 | S13 | W35 | 08 | 3.7 | | | CAI | | 12 | 8 | 3 |
| 9567 | | RAMY | 08 | 06 | 1150 | S14 | W37 | 08 | 3.7 | | B | DSO | 30 | 7 | 7 | 2 |
| 9567 | | HOLL | 08 | 06 | 1415 | S10 | W38 | 08 | 3.7 | | B | CAO | 30 | 10 | 7 | 3 |
| 9567 | 30624 | MWIL | 08 | 06 | 1445 | S14 | W39 | 08 | 3.7 | 5 | (BP) | | | | | |
| 9567 | | LEAR | 08 | 07 | 0145 | S13 | W46 | 08 | 3.6 | | B | CAO | 80 | 7 | 6 | 4 |
| 9567 | | VORO | 08 | 07 | 0257 | S14 | W47 | 08 | 3.6 | | | BXO | 33 | 3 | 3 | 3 |
| 9567 | | TACH | 08 | 07 | 0524 | S12 | W45 | 08 | 3.8 | | | BRI | 29 | 5 | 11 | 3 |
| 9567 | | SVTO | 08 | 07 | 0544 | S15 | W47 | 08 | 3.7 | | B | CRO | 30 | 8 | 6 | 3 |
| 9567 | | KAND | 08 | 07 | 0700 | S13 | W50 | 08 | 3.5 | | | BXO | | 3 | 5 | 4 |
| 9567 | | RAMY | 08 | 07 | 1220 | S15 | W55 | 08 | 3.3 | | A | AXX | 10 | 2 | 1 | 3 |
| 9567 | 30624 | MWIL | 08 | 07 | 1430 | S14 | W53 | 08 | 3.6 | 4 | (BP) | | | | | |
| 9567 | | HOLL | 08 | 07 | 1645 | S15 | W52 | 08 | 3.8 | | B | BXO | 20 | 4 | 7 | 3 |
| 9567 | | LEAR | 08 | 08 | 0020 | S13 | W59 | 08 | 3.6 | | B | CSO | 60 | 7 | 10 | 2 |
| 9567 | | TACH | 08 | 08 | 0524 | S12 | W54 | 08 | 4.1 | | | BRI | 34 | 6 | 7 | 3 |
| 9567 | | SVTO | 08 | 08 | 0540 | S13 | W58 | 08 | 3.8 | | B | ERO | 30 | 5 | 15 | 3 |
| 9567 | | KAND | 08 | 08 | 0845 | S13 | W63 | 08 | 3.6 | | | BXO | | 4 | 7 | 4 |
| 9567 | | RAMY | 08 | 08 | 1230 | S15 | W64 | 08 | 3.7 | | A | HSX | 20 | 1 | 1 | 3 |
| 9567 | 30624 | MWIL | 08 | 08 | 1430 | S15 | W66 | 08 | 3.6 | 4 | (B ) | | | | | |
| 9567 | | HOLL | 08 | 08 | 1550 | S14 | W66 | 08 | 3.7 | | A | HSX | 50 | 1 | 2 | 3 |
| 9567 | | LEAR | 08 | 09 | 0030 | S13 | W71 | 08 | 3.7 | | B | DAO | 80 | 5 | 8 | 3 |
| 9567 | | TACH | 08 | 09 | 0509 | S11 | W66 | 08 | 4.2 | | | BXO | 3 | 2 | 4 | 2 |
| 9567 | | SVTO | 08 | 09 | 0545 | S13 | W75 | 08 | 3.6 | | B | DAO | 60 | 6 | 8 | 3 |
| 9567 | | KAND | 08 | 09 | 1010 | S11 | W75 | 08 | 3.8 | | | BXO | | 3 | 8 | 5 |
| 9567 | 30624 | MWIL | 08 | 09 | 1445 | S14 | W79 | 08 | 3.6 | 4 | B | | | | | |
| 9561 | 30614 | MWIL | 07 | 29 | 1415 | S12 | E78 | 08 | 4.5 | 4 | (AP) | | | | | |
| 9561 | | HOLL | 07 | 29 | 1439 | S13 | E77 | 08 | 4.4 | | A | HSX | 50 | 1 | 2 | 3 |
| 9561 | | VORO | 07 | 30 | 0136 | S11 | E70 | 08 | 4.3 | | | HAX | 76 | 1 | | 2 |
| 9561 | | LEAR | 07 | 30 | 0230 | S13 | E72 | 08 | 4.5 | | B | CAO | 60 | 2 | 2 | 2 |
| 9561 | | SVTO | 07 | 30 | 0520 | S13 | E75 | 08 | 4.9 | | B | DSO | 60 | 6 | 10 | 3 |
| 9561 | | TACH | 07 | 30 | 0541 | S12 | E69 | 08 | 4.4 | | | AXX | 25 | 1 | 1 | 2 |
| 9561 | | KAND | 07 | 30 | 0835 | S13 | E70 | 08 | 4.6 | | | CSO | | 5 | 8 | 3 |
| 9561 | | KAND | 07 | 30 | 0835 | S13 | E70 | 08 | 4.6 | | | CSO | | 5 | 8 | 3 |
| 9561 | | HOLL | 07 | 30 | 1326 | S13 | E67 | 08 | 4.6 | | B | DAO | 80 | 5 | 7 | 3 |
| 9561 | 30614 | MWIL | 07 | 30 | 1415 | S13 | E67 | 08 | 4.6 | 4 | (B ) | | | | | |
| 9561 | | LEAR | 07 | 31 | 0020 | S13 | E61 | 08 | 4.6 | | B | DAO | 60 | 8 | 10 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9561 | | TACH | 07 | 31 | 0538 | S13 | E58 | 08 | 4.6 | | | DAI | 88 | 6 | 8 | 3 |
| 9561 | | KAND | 07 | 31 | 0657 | S13 | E60 | 08 | 4.8 | | | ESO | | 8 | 11 | 3 |
| 9561 | | KAND | 07 | 31 | 0657 | S13 | E60 | 08 | 4.8 | | | ESO | | 8 | 11 | 3 |
| 9561 | | SVTO | 07 | 31 | 1125 | S13 | E56 | 08 | 4.7 | | B | DAO | 110 | 9 | 10 | 2 |
| 9561 | | RAMY | 07 | 31 | 1300 | S12 | E56 | 08 | 4.8 | | B | DSO | 110 | 9 | 10 | 2 |
| 9561 | | HOLL | 07 | 31 | 1348 | S12 | E55 | 08 | 4.7 | | B | DAO | 110 | 15 | 10 | 3 |
| 9561 | 30614 | MWIL | 07 | 31 | 1415 | S13 | E55 | 08 | 4.7 | 5 | (B ) | | | | | |
| 9561 | | LEAR | 08 | 01 | 0305 | S13 | E48 | 08 | 4.7 | | B | DAI | 100 | 11 | 10 | 3 |
| 9561 | | TACH | 08 | 01 | 0628 | S15 | E51 | 08 | 5.1 | | | HA | 37 | 4 | 2 | 2 |
| 9561 | | SVTO | 08 | 01 | 0713 | S13 | E44 | 08 | 4.6 | | B | EAO | 90 | 9 | 11 | 2 |
| 9561 | | KAND | 08 | 01 | 0745 | S13 | E44 | 08 | 4.6 | | | EAO | | 6 | 11 | 3 |
| 9561 | | RAMY | 08 | 01 | 1125 | S11 | E43 | 08 | 4.7 | | B | ESO | 130 | 7 | 11 | 3 |
| 9561 | | HOLL | 08 | 01 | 1430 | S13 | E40 | 08 | 4.6 | | B | ESO | 110 | 9 | 11 | 2 |
| 9561 | 30614 | MWIL | 08 | 01 | 1500 | S12 | E41 | 08 | 4.7 | 5 | (B ) | | | | | |
| 9561 | | LEAR | 08 | 02 | 0030 | S13 | E36 | 08 | 4.7 | | B | DAO | 80 | 15 | 10 | 2 |
| 9561 | | SVTO | 08 | 02 | 0620 | S13 | E34 | 08 | 4.8 | | B | ESO | 110 | 11 | 12 | 2 |
| 9561 | | TACH | 08 | 02 | 0640 | S14 | E36 | 08 | 5.0 | | | HA | 55 | 2 | 2 | 3 |
| 9561 | | RAMY | 08 | 02 | 1205 | S11 | E31 | 08 | 4.8 | | B | DAO | 70 | 8 | 9 | 2 |
| 9561 | | HOLL | 08 | 02 | 1430 | S13 | E28 | 08 | 4.7 | | B | ESO | 120 | 15 | 11 | 4 |
| 9561 | 30614 | MWIL | 08 | 02 | 1500 | S13 | E28 | 08 | 4.7 | 5 | (B ) | | | | | |
| 9561 | | VORO | 08 | 02 | 2341 | S11 | E19 | 08 | 4.4 | | | HAX | 46 | 1 | | 2 |
| 9561 | | LEAR | 08 | 03 | 0130 | S13 | E22 | 08 | 4.7 | | B | CSO | 20 | 5 | 11 | 3 |
| 9561 | | TACH | 08 | 03 | 0457 | S13 | E25 | 08 | 5.1 | | | HA | 45 | 5 | 2 | 3 |
| 9561 | | SVTO | 08 | 03 | 0555 | S13 | E21 | 08 | 4.8 | | B | CSO | 40 | 8 | 13 | 3 |
| 9561 | | KAND | 08 | 03 | 0650 | S13 | E19 | 08 | 4.7 | | | ESO | | 8 | 11 | 4 |
| 9561 | | RAMY | 08 | 03 | 1218 | S12 | E16 | 08 | 4.7 | | B | DSO | 40 | 6 | 10 | 3 |
| 9561 | | HOLL | 08 | 03 | 1500 | S13 | E13 | 08 | 4.6 | | B | ESO | 60 | 4 | 11 | 3 |
| 9561 | 30614 | MWIL | 08 | 03 | 1500 | S13 | E14 | 08 | 4.7 | 5 | (B ) | | | | | |
| 9561 | | VORO | 08 | 03 | 2145 | S11 | E06 | 08 | 4.3 | | | HAX | 43 | 1 | | 2 |
| 9561 | | LEAR | 08 | 04 | 0100 | S13 | E09 | 08 | 4.7 | | B | EAO | 50 | 8 | 11 | 4 |
| 9561 | | SVTO | 08 | 04 | 0545 | S12 | E06 | 08 | 4.7 | | B | CSO | 40 | 9 | 10 | 3 |
| 9561 | | TACH | 08 | 04 | 0550 | S12 | E11 | 08 | 5.1 | | | AR | 5 | 2 | 1 | 3 |
| 9561 | | KAND | 08 | 04 | 0815 | S11 | E05 | 08 | 4.7 | | | CSO | | 7 | 10 | 3 |
| 9561 | | RAMY | 08 | 04 | 1205 | S12 | E03 | 08 | 4.7 | | B | CSO | 30 | 6 | 11 | 3 |
| 9561 | 30614 | MWIL | 08 | 04 | 1430 | S13 | E01 | 08 | 4.7 | 4 | (B ) | | | | | |
| 9561 | | HOLL | 08 | 04 | 1745 | S13 | W01 | 08 | 4.7 | | B | CSO | 30 | 10 | 11 | 3 |
| 9561 | | LEAR | 08 | 05 | 0155 | S13 | W06 | 08 | 4.6 | | B | CAO | 40 | 8 | 3 | 3 |
| 9561 | | TACH | 08 | 05 | 0443 | S13 | W02 | 08 | 5.0 | | | AXX | 2 | 1 | 1 | 3 |
| 9561 | | SVTO | 08 | 05 | 0815 | S13 | W08 | 08 | 4.7 | | B | ESO | 40 | 2 | 11 | 3 |
| 9561 | | KAND | 08 | 05 | 0840 | S11 | W10 | 08 | 4.6 | | | CSO | | 2 | 10 | 2 |
| 9561 | | RAMY | 08 | 05 | 1235 | S12 | W12 | 08 | 4.6 | | B | CSO | 30 | 2 | 9 | 2 |
| 9561 | 30614 | MWIL | 08 | 05 | 1500 | S12 | W13 | 08 | 4.6 | 4 | (B ) | | | | | |
| 9561 | | HOLL | 08 | 05 | 1545 | S09 | W19 | 08 | 4.2 | | A | HSX | 40 | 1 | 2 | 3 |
| 9561 | | VORO | 08 | 05 | 2253 | S11 | W22 | 08 | 4.3 | | | HAX | 47 | 1 | | 3 |
| 9561 | | LEAR | 08 | 06 | 0035 | S10 | W24 | 08 | 4.2 | | A | HSX | 20 | 1 | 1 | 1 |
| 9561 | | SVTO | 08 | 06 | 0534 | S11 | W24 | 08 | 4.4 | | B | CSO | 20 | 3 | 3 | 3 |
| 9561 | | KAND | 08 | 06 | 0830 | S11 | W23 | 08 | 4.6 | | | CSO | | 3 | 9 | 3 |
| 9561 | | RAMY | 08 | 06 | 1150 | S11 | W30 | 08 | 4.2 | | A | HSX | 20 | 1 | 1 | 2 |
| 9561 | | HOLL | 08 | 06 | 1415 | S07 | W31 | 08 | 4.3 | | A | HAX | 20 | 1 | 2 | 3 |
| 9561 | 30614 | MWIL | 08 | 06 | 1445 | S12 | W27 | 08 | 4.6 | 5 | (BP) | | | | | |
| 9561 | | LEAR | 08 | 07 | 0145 | S10 | W37 | 08 | 4.3 | | A | HSX | 30 | 1 | 1 | 4 |
| 9561 | | VORO | 08 | 07 | 0257 | S11 | W37 | 08 | 4.3 | | | HAX | 34 | 1 | | 3 |
| 9561 | | SVTO | 08 | 07 | 0544 | S12 | W38 | 08 | 4.4 | | A | HSX | 30 | 1 | 1 | 3 |
| 9561 | | KAND | 08 | 07 | 0700 | S10 | W39 | 08 | 4.4 | | | HS | | 1 | 1 | 4 |
| 9561 | | RAMY | 08 | 07 | 1220 | S12 | W42 | 08 | 4.3 | | A | HSX | 20 | 1 | 1 | 3 |
| 9561 | 30614 | MWIL | 08 | 07 | 1430 | S11 | W43 | 08 | 4.4 | 4 | (AP) | | | | | |
| 9561 | | HOLL | 08 | 07 | 1645 | S11 | W44 | 08 | 4.4 | | A | HSX | 60 | 1 | 2 | 3 |
| 9561 | | LEAR | 08 | 08 | 0020 | S10 | W50 | 08 | 4.2 | | A | HSX | 20 | 1 | 1 | 2 |
| 9561 | | KAND | 08 | 08 | 0845 | S09 | W54 | 08 | 4.3 | | | HS | | 1 | 1 | 4 |
| 9561 | | RAMY | 08 | 08 | 1230 | S11 | W57 | 08 | 4.2 | | A | HSX | 10 | 1 | 1 | 3 |
| 9561 | 30614 | MWIL | 08 | 08 | 1430 | S11 | W56 | 08 | 4.4 | 4 | (AP) | | | | | |
| 9561 | | HOLL | 08 | 08 | 1550 | S11 | W59 | 08 | 4.2 | | A | HSX | 40 | 1 | 2 | 3 |
| 9561 | | VORO | 08 | 08 | 2123 | S12 | W64 | 08 | 4.1 | | | BXO | 23 | 3 | 6 | 2 |
| 9561 | | LEAR | 08 | 09 | 0030 | S09 | W64 | 08 | 4.2 | | A | HSX | 20 | 1 | 1 | 3 |
| 9561 | | SVTO | 08 | 09 | 0545 | S10 | W67 | 08 | 4.2 | | A | HSX | 20 | 1 | 1 | 3 |
| 9561 | | RAMY | 08 | 09 | 1145 | S10 | W68 | 08 | 4.4 | | A | AXX | 10 | 1 | | 2 |
| 9561 | 30614 | MWIL | 08 | 09 | 1445 | S11 | W71 | 08 | 4.3 | 4 | (AP) | | | | | |
| 9561A | | VORO | 08 | 02 | 2341 | S14 | E28 | 08 | 5.1 | | | AXX | 36 | 3 | 0 | 2 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9561A | | VORO | 08 | 03 | 2145 | S13 | E16 | 08 | 5.1 | | | AXX | 9 | 1 | | 2 |
| 9562 | 30615 | MWIL | 07 | 29 | 1415 | N05 | E88 | 08 | 5.2 | 5 | AP | | | | | |
| 9562 | | VORO | 07 | 30 | 0136 | N05 | E78 | 08 | 4.9 | | | HAX | 196 | 1 | | 2 |
| 9562 | | LEAR | 07 | 30 | 0230 | N04 | E76 | 08 | 4.8 | | A | HAX | 60 | 1 | 4 | 2 |
| 9562 | | SVTO | 07 | 30 | 0520 | N06 | E81 | 08 | 5.3 | | B | ESO | 150 | 2 | 11 | 3 |
| 9562 | | TACH | 07 | 30 | 0541 | N04 | E81 | 08 | 5.3 | | | DSO | 65 | 2 | 6 | 2 |
| 9562 | | KAND | 07 | 30 | 0835 | N04 | E78 | 08 | 5.2 | | | DSO | | 2 | 8 | 3 |
| 9562 | | KAND | 07 | 30 | 0835 | N04 | E78 | 08 | 5.2 | | | DSO | | 2 | 8 | 3 |
| 9562 | | HOLL | 07 | 30 | 1326 | N05 | E76 | 08 | 5.2 | | B | DAO | 180 | 2 | 7 | 3 |
| 9562 | 30615 | MWIL | 07 | 30 | 1415 | N05 | E76 | 08 | 5.3 | 5 | (BP) | | | | | |
| 9562 | | LEAR | 07 | 31 | 0020 | N05 | E69 | 08 | 5.2 | | B | EAO | 180 | 8 | 11 | 3 |
| 9562 | | TACH | 07 | 31 | 0538 | N04 | E68 | 08 | 5.3 | | | DAI | 214 | 5 | 9 | 3 |
| 9562 | | KAND | 07 | 31 | 0657 | N04 | E68 | 08 | 5.4 | | | ESO | | 5 | 12 | 3 |
| 9562 | | KAND | 07 | 31 | 0657 | N04 | E68 | 08 | 5.4 | | | ESO | | 5 | 12 | 3 |
| 9562 | | SVTO | 07 | 31 | 1125 | N05 | E66 | 08 | 5.4 | | B | DSO | 280 | 5 | 10 | 2 |
| 9562 | | RAMY | 07 | 31 | 1300 | N07 | E64 | 08 | 5.3 | | B | DSO | 180 | 2 | 10 | 2 |
| 9562 | | HOLL | 07 | 31 | 1348 | N06 | E64 | 08 | 5.4 | | B | EAO | 200 | 7 | 11 | 3 |
| 9562 | 30615 | MWIL | 07 | 31 | 1415 | N05 | E61 | 08 | 5.1 | 5 | (BG) | | | | | |
| 9562 | | LEAR | 08 | 01 | 0305 | N04 | E55 | 08 | 5.2 | | B | DAO | 120 | 8 | 9 | 3 |
| 9562 | | TACH | 08 | 01 | 0628 | N05 | E53 | 08 | 5.2 | | | CSO | 100 | 2 | 6 | 2 |
| 9562 | | SVTO | 08 | 01 | 0713 | N04 | E53 | 08 | 5.3 | | BG | DAO | 140 | 8 | 10 | 2 |
| 9562 | | KAND | 08 | 01 | 0745 | N04 | E53 | 08 | 5.3 | | | DSO | | 3 | 10 | 3 |
| 9562 | | RAMY | 08 | 01 | 1125 | N07 | E50 | 08 | 5.2 | | B | DSO | 110 | 5 | 10 | 3 |
| 9562 | | HOLL | 08 | 01 | 1430 | N06 | E47 | 08 | 5.1 | | B | DSO | 120 | 6 | 10 | 2 |
| 9562 | 30615 | MWIL | 08 | 01 | 1500 | N05 | E49 | 08 | 5.3 | 5 | (B ) | | | | | |
| 9562 | | LEAR | 08 | 02 | 0030 | N03 | E43 | 08 | 5.2 | | B | DAO | 130 | 7 | 10 | 2 |
| 9562 | | SVTO | 08 | 02 | 0620 | N04 | E40 | 08 | 5.2 | | B | DAO | 120 | 4 | 8 | 2 |
| 9562 | | TACH | 08 | 02 | 0640 | N06 | E38 | 08 | 5.1 | | | CSO | 125 | 2 | 7 | 3 |
| 9562 | | RAMY | 08 | 02 | 1205 | N07 | E36 | 08 | 5.2 | | B | DSO | 60 | 3 | 7 | 2 |
| 9562 | | HOLL | 08 | 02 | 1430 | N05 | E36 | 08 | 5.3 | | B | DAO | 110 | 9 | 8 | 4 |
| 9562 | 30615 | MWIL | 08 | 02 | 1500 | N05 | E35 | 08 | 5.2 | 5 | (BG) | | | | | |
| 9562 | | VORO | 08 | 02 | 2341 | N05 | E30 | 08 | 5.2 | | | HAX | 94 | 2 | 6 | 2 |
| 9562 | | LEAR | 08 | 03 | 0130 | N04 | E27 | 08 | 5.1 | | B | DSO | 50 | 4 | 8 | 3 |
| 9562 | | TACH | 08 | 03 | 0457 | N05 | E25 | 08 | 5.1 | | | CSO | 76 | 3 | 6 | 3 |
| 9562 | | SVTO | 08 | 03 | 0555 | N04 | E26 | 08 | 5.2 | | B | CSO | 100 | 7 | 9 | 3 |
| 9562 | | KAND | 08 | 03 | 0650 | N04 | E25 | 08 | 5.1 | | | DSO | | 4 | 7 | 4 |
| 9562 | | RAMY | 08 | 03 | 1218 | N06 | E22 | 08 | 5.1 | | B | DSO | 20 | 2 | 6 | 3 |
| 9562 | | HOLL | 08 | 03 | 1500 | N04 | E20 | 08 | 5.1 | | B | DAO | 80 | 5 | 8 | 3 |
| 9562 | 30615 | MWIL | 08 | 03 | 1500 | N04 | E21 | 08 | 5.2 | 5 | (BP) | | | | | |
| 9562 | | VORO | 08 | 03 | 2145 | N05 | E17 | 08 | 5.2 | | | HAX | 76 | 2 | 6 | 2 |
| 9562 | | LEAR | 08 | 04 | 0100 | N04 | E15 | 08 | 5.2 | | B | DAO | 50 | 3 | 7 | 4 |
| 9562 | | SVTO | 08 | 04 | 0545 | N05 | E13 | 08 | 5.2 | | B | DSO | 50 | 2 | 7 | 3 |
| 9562 | | TACH | 08 | 04 | 0550 | N05 | E12 | 08 | 5.1 | | | BXO | 70 | 2 | 6 | 3 |
| 9562 | | KAND | 08 | 04 | 0815 | N05 | E10 | 08 | 5.1 | | | CAO | | 3 | 7 | 3 |
| 9562 | | RAMY | 08 | 04 | 1205 | N06 | E09 | 08 | 5.2 | | B | CSO | 40 | 4 | 7 | 3 |
| 9562 | 30615 | MWIL | 08 | 04 | 1430 | N04 | E07 | 08 | 5.1 | 5 | (B ) | | | | | |
| 9562 | | HOLL | 08 | 04 | 1745 | N05 | E06 | 08 | 5.2 | | B | CAO | 30 | 10 | 8 | 3 |
| 9562 | | LEAR | 08 | 05 | 0155 | N04 | E01 | 08 | 5.1 | | B | CSO | 20 | 5 | 7 | 3 |
| 9562 | | TACH | 08 | 05 | 0443 | N05 | W04 | 08 | 4.9 | | | BRO | 65 | 3 | 7 | 3 |
| 9562 | | SVTO | 08 | 05 | 0815 | N05 | W01 | 08 | 5.3 | | B | ESO | 50 | 10 | 11 | 3 |
| 9562 | | KAND | 08 | 05 | 0840 | N05 | W05 | 08 | 5.0 | | | CSO | | 3 | 3 | 2 |
| 9562 | | RAMY | 08 | 05 | 1235 | N04 | W06 | 08 | 5.1 | | B | DSO | 50 | 3 | 7 | 2 |
| 9562 | 30615 | MWIL | 08 | 05 | 1500 | N05 | W05 | 08 | 5.2 | 4 | (B ) | | | | | |
| 9562 | | HOLL | 08 | 05 | 1545 | N05 | W08 | 08 | 5.0 | | B | ESO | 40 | 7 | 11 | 3 |
| 9562 | | LEAR | 08 | 06 | 0035 | N05 | W13 | 08 | 5.0 | | B | DAO | 30 | 3 | 7 | 1 |
| 9562 | | TACH | 08 | 06 | 0515 | N04 | W19 | 08 | 4.8 | | | AR | 28 | 2 | 2 | 4 |
| 9562 | | SVTO | 08 | 06 | 0534 | N05 | W17 | 08 | 5.0 | | B | CSO | 20 | 4 | 4 | 3 |
| 9562 | | KAND | 08 | 06 | 0830 | N05 | W19 | 08 | 4.9 | | | BXO | | 4 | 3 | 3 |
| 9562 | | RAMY | 08 | 06 | 1150 | N05 | W22 | 08 | 4.8 | | B | CSO | 20 | 2 | 3 | 2 |
| 9562 | | HOLL | 08 | 06 | 1415 | N08 | W20 | 08 | 5.1 | | B | CAO | 30 | 8 | 10 | 3 |
| 9562 | 30615 | MWIL | 08 | 06 | 1445 | N05 | W19 | 08 | 5.2 | 5 | (B ) | | | | | |
| 9562 | | LEAR | 08 | 07 | 0145 | N05 | W28 | 08 | 5.0 | | B | CAO | 20 | 3 | 2 | 4 |
| 9562 | | VORO | 08 | 07 | 0257 | N04 | W30 | 08 | 4.9 | | | AXX | 10 | 1 | | 3 |
| 9562 | | TACH | 08 | 07 | 0524 | N04 | W31 | 08 | 4.9 | | | AXX | 5 | 1 | 1 | 3 |
| 9562 | | SVTO | 08 | 07 | 0544 | N06 | W26 | 08 | 5.3 | | B | BXO | 20 | 7 | 12 | 3 |
| 9562 | | KAND | 08 | 07 | 0700 | N04 | W33 | 08 | 4.8 | | | HS | | 1 | 2 | 4 |
| 9562 | 30615 | MWIL | 08 | 07 | 1430 | N05 | W32 | 08 | 5.2 | 4 | (B ) | | | | | |
| 9562 | | HOLL | 08 | 07 | 1645 | N03 | W38 | 08 | 4.8 | | A | AXX | 10 | 1 | 1 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9562 | | LEAR | 08 | 08 | 0020 | N05 | W42 | 08 | 4.9 | | A | HSX | 20 | 1 | 1 | 2 |
| 9562 | | SVTO | 08 | 08 | 0540 | N04 | W46 | 08 | 4.8 | | A | AXX | 10 | 1 | 1 | 3 |
| 9562 | | KAND | 08 | 08 | 0845 | N06 | W47 | 08 | 4.8 | | | CSO | | 2 | 2 | 4 |
| 9562 | | RAMY | 08 | 08 | 1230 | N05 | W50 | 08 | 4.8 | | B | CSO | 20 | 2 | 2 | 3 |
| 9562 | 30615 | MWIL | 08 | 08 | 1430 | N05 | W47 | 08 | 5.1 | 4 | (BG) | | | | | |
| 9562 | | HOLL | 08 | 08 | 1550 | N05 | W51 | 08 | 4.8 | | A | AXX | 20 | 3 | 2 | 3 |
| 9562 | | VORO | 08 | 08 | 2123 | N05 | W54 | 08 | 4.8 | | | BXI | 27 | 4 | 1 | 2 |
| 9562 | | LEAR | 08 | 09 | 0030 | N06 | W56 | 08 | 4.8 | | B | DSO | 30 | 6 | 3 | 3 |
| 9562 | | TACH | 08 | 09 | 0509 | N05 | W59 | 08 | 4.8 | | | AR | 6 | 2 | 1 | 2 |
| 9562 | | SVTO | 08 | 09 | 0545 | N05 | W59 | 08 | 4.8 | | B | DSO | 30 | 5 | 3 | 3 |
| 9562 | | KAND | 08 | 09 | 1010 | N07 | W57 | 08 | 5.1 | | | BXO | | 6 | 10 | 5 |
| 9562 | | RAMY | 08 | 09 | 1145 | N04 | W64 | 08 | 4.7 | | A | HSX | 10 | 1 | 1 | 2 |
| 9562 | 30615 | MWIL | 08 | 09 | 1445 | N06 | W60 | 08 | 5.1 | 4 | (B ) | | | | | |
| 9562 | | KAND | 08 | 10 | 0720 | N05 | W72 | 08 | 4.9 | | | AX | | 3 | 2 | 3 |
| 9563 | | LEAR | 07 | 31 | 0020 | N24 | E69 | 08 | 5.3 | | A | AXX | 10 | 1 | 1 | 3 |
| 9563 | | KAND | 07 | 31 | 0657 | N23 | E66 | 08 | 5.4 | | | AX | | 1 | | 3 |
| 9563 | | KAND | 07 | 31 | 0657 | N23 | E66 | 08 | 5.4 | | | AX | | 1 | | 3 |
| 9563 | | HOLL | 07 | 31 | 1348 | N24 | E62 | 08 | 5.4 | | A | AXX | 10 | 1 | 1 | 3 |
| 9563 | 30618 | MWIL | 07 | 31 | 1415 | N24 | E61 | 08 | 5.3 | 4 | (AP) | | | | | |
| 9563 | | LEAR | 08 | 01 | 0305 | N24 | E55 | 08 | 5.4 | | A | AXX | 10 | 1 | 1 | 3 |
| 9563 | | HOLL | 08 | 01 | 1430 | N24 | E48 | 08 | 5.3 | | A | AXX | 10 | 1 | 1 | 2 |
| 9563 | 30618 | MWIL | 08 | 01 | 1500 | N24 | E49 | 08 | 5.4 | 4 | (B ) | | | | | |
| 9563 | | LEAR | 08 | 02 | 0030 | N24 | E44 | 08 | 5.4 | | B | CRO | 20 | 2 | 3 | 2 |
| 9563 | | SVTO | 08 | 02 | 0620 | N25 | E42 | 08 | 5.5 | | B | BXO | 30 | 4 | 4 | 2 |
| 9563 | | TACH | 08 | 02 | 0640 | N26 | E41 | 08 | 5.5 | | | BRO | 6 | 3 | 4 | 3 |
| 9563 | | RAMY | 08 | 02 | 1205 | N26 | E36 | 08 | 5.3 | | B | DSO | 30 | 6 | 5 | 2 |
| 9563 | | HOLL | 08 | 02 | 1430 | N25 | E35 | 08 | 5.3 | | B | CAI | 90 | 13 | 6 | 4 |
| 9563 | 30618 | MWIL | 08 | 02 | 1500 | N24 | E35 | 08 | 5.3 | 4 | (BG) | | | | | |
| 9563 | | VORO | 08 | 02 | 2341 | N24 | E31 | 08 | 5.4 | | | BXO | 64 | 11 | 4 | 2 |
| 9563 | | LEAR | 08 | 03 | 0130 | N23 | E29 | 08 | 5.3 | | B | DSI | 60 | 22 | 6 | 3 |
| 9563 | | TACH | 08 | 03 | 0457 | N23 | E30 | 08 | 5.5 | | | DAI | 165 | 13 | 5 | 3 |
| 9563 | | SVTO | 08 | 03 | 0555 | N24 | E27 | 08 | 5.3 | | B | DAO | 70 | 13 | 8 | 3 |
| 9563 | | KAND | 08 | 03 | 0650 | N24 | E28 | 08 | 5.4 | | | DAI | | 19 | 7 | 4 |
| 9563 | | RAMY | 08 | 03 | 1218 | N26 | E23 | 08 | 5.3 | | B | DAI | 90 | 15 | 8 | 3 |
| 9563 | | HOLL | 08 | 03 | 1500 | N23 | E23 | 08 | 5.4 | | B | DAI | 140 | 18 | 8 | 3 |
| 9563 | 30618 | MWIL | 08 | 03 | 1500 | N24 | E23 | 08 | 5.4 | 5 | (D ) | | | | | |
| 9563 | | VORO | 08 | 03 | 2145 | N24 | E20 | 08 | 5.4 | | | DAI | 339 | 17 | 7 | 2 |
| 9563 | | LEAR | 08 | 04 | 0100 | N23 | E18 | 08 | 5.4 | | B | DAI | 190 | 22 | 9 | 4 |
| 9563 | | SVTO | 08 | 04 | 0545 | N24 | E16 | 08 | 5.5 | | B | DAO | 110 | 21 | 10 | 3 |
| 9563 | | TACH | 08 | 04 | 0550 | N24 | E15 | 08 | 5.4 | | | CAI | 358 | 15 | 8 | 3 |
| 9563 | | KAND | 08 | 04 | 0815 | N22 | E14 | 08 | 5.4 | | | DAI | | 27 | 9 | 3 |
| 9563 | | RAMY | 08 | 04 | 1205 | N24 | E11 | 08 | 5.3 | | B | DAI | 250 | 22 | 9 | 3 |
| 9563 | 30618 | MWIL | 08 | 04 | 1430 | N24 | E10 | 08 | 5.4 | 5 | (B ) | | | | | |
| 9563 | | HOLL | 08 | 04 | 1745 | N23 | E07 | 08 | 5.3 | | B | DAI | 280 | 38 | 9 | 3 |
| 9563 | | LEAR | 08 | 05 | 0155 | N22 | E04 | 08 | 5.4 | | B | DAO | 290 | 42 | 10 | 3 |
| 9563 | | TACH | 08 | 05 | 0443 | N24 | E03 | 08 | 5.4 | | | DAI | 539 | 15 | 7 | 3 |
| 9563 | | SVTO | 08 | 05 | 0815 | N23 | E01 | 08 | 5.4 | | BG | EAI | 200 | 57 | 13 | 3 |
| 9563 | | KAND | 08 | 05 | 0840 | N23 | E00 | 08 | 5.4 | | | DAI | | 23 | 10 | 2 |
| 9563 | | RAMY | 08 | 05 | 1235 | N23 | W03 | 08 | 5.3 | | B | EAI | 380 | 19 | 11 | 2 |
| 9563 | 30618 | MWIL | 08 | 05 | 1500 | N24 | W03 | 08 | 5.4 | 5 | (B ) | | | | | |
| 9563 | | HOLL | 08 | 05 | 1545 | N23 | W02 | 08 | 5.5 | | BG | EAI | 430 | 26 | 11 | 3 |
| 9563 | | VORO | 08 | 05 | 2253 | N24 | W07 | 08 | 5.4 | | | DKI | 586 | 20 | 10 | 3 |
| 9563 | | LEAR | 08 | 06 | 0035 | N22 | W08 | 08 | 5.4 | | BG | EKI | 290 | 16 | 11 | 1 |
| 9563 | | TACH | 08 | 06 | 0515 | N25 | W11 | 08 | 5.4 | | | DAI | 838 | 15 | 10 | 4 |
| 9563 | | SVTO | 08 | 06 | 0534 | N25 | W12 | 08 | 5.3 | | BG | EKI | 370 | 19 | 14 | 3 |
| 9563 | | KAND | 08 | 06 | 0830 | N25 | W12 | 08 | 5.4 | | | EKI | | 24 | 13 | 3 |
| 9563 | | RAMY | 08 | 06 | 1150 | N24 | W16 | 08 | 5.2 | | BG | EAI | 440 | 16 | 13 | 2 |
| 9563 | | HOLL | 08 | 06 | 1415 | N25 | W15 | 08 | 5.4 | | B | EKI | 420 | 35 | 13 | 3 |
| 9563 | 30618 | MWIL | 08 | 06 | 1445 | N24 | W15 | 08 | 5.4 | 5 | (B ) | | | | | |
| 9563 | | LEAR | 08 | 07 | 0145 | N23 | W22 | 08 | 5.4 | | BG | EKI | 490 | 25 | 12 | 4 |
| 9563 | | VORO | 08 | 07 | 0257 | N25 | W22 | 08 | 5.4 | | | DKI | 785 | 27 | 11 | 3 |
| 9563 | | TACH | 08 | 07 | 0524 | N24 | W24 | 08 | 5.4 | | | CAI | 749 | 18 | 8 | 3 |
| 9563 | | SVTO | 08 | 07 | 0544 | N24 | W25 | 08 | 5.3 | | BG | EKI | 410 | 21 | 15 | 3 |
| 9563 | | KAND | 08 | 07 | 0700 | N24 | W24 | 08 | 5.4 | | | EKI | | 31 | 13 | 4 |
| 9563 | | RAMY | 08 | 07 | 1220 | N24 | W28 | 08 | 5.3 | | BG | EHI | 490 | 22 | 13 | 3 |
| 9563 | 30618 | MWIL | 08 | 07 | 1430 | N24 | W28 | 08 | 5.4 | 5 | (BG) | | | | | |
| 9563 | | HOLL | 08 | 07 | 1645 | N25 | W32 | 08 | 5.2 | | BG | EKI | 500 | 28 | 13 | 3 |
| 9563 | | LEAR | 08 | 08 | 0020 | N24 | W34 | 08 | 5.4 | | BG | EKI | 440 | 25 | 15 | 2 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9563 | | TACH | 08 | 08 | 0524 | N25 | W37 | 08 | 5.3 | | | DAI | 841 | 16 | 12 | 3 |
| 9563 | | SVTO | 08 | 08 | 0540 | N23 | W38 | 08 | 5.3 | | BG | FKI | 460 | 30 | 17 | 3 |
| 9563 | | KAND | 08 | 08 | 0845 | N25 | W39 | 08 | 5.3 | | | EAC | | 17 | 14 | 4 |
| 9563 | | RAMY | 08 | 08 | 1230 | N25 | W42 | 08 | 5.3 | | BG | E I | 400 | 18 | 14 | 3 |
| 9563 | 30618 | MWIL | 08 | 08 | 1430 | N24 | W41 | 08 | 5.4 | 5 | (B ) | | | | | |
| 9563 | | HOLL | 08 | 08 | 1550 | N25 | W45 | 08 | 5.2 | | B | EAI | 510 | 21 | 14 | 3 |
| 9563 | | VORO | 08 | 08 | 2123 | N25 | W46 | 08 | 5.3 | | | DAI | 553 | 15 | 13 | 2 |
| 9563 | | LEAR | 08 | 09 | 0030 | N25 | W47 | 08 | 5.4 | | BG | EKI | 440 | 25 | 15 | 3 |
| 9563 | | TACH | 08 | 09 | 0509 | N25 | W50 | 08 | 5.3 | | | DAI | 458 | 13 | 13 | 2 |
| 9563 | | SVTO | 08 | 09 | 0545 | N25 | W55 | 08 | 5.0 | | BG | FAI | 420 | 20 | 17 | 3 |
| 9563 | | KAND | 08 | 09 | 1010 | N25 | W52 | 08 | 5.4 | | | ESI | | 21 | 15 | 5 |
| 9563 | | RAMY | 08 | 09 | 1145 | N23 | W54 | 08 | 5.3 | | BG | FAI | 560 | 16 | 18 | 2 |
| 9563 | 30618 | MWIL | 08 | 09 | 1445 | N24 | W55 | 08 | 5.4 | 5 | (BG) | | | | | |
| 9563 | | VORO | 08 | 09 | 2120 | N25 | W60 | 08 | 5.2 | | | DAI | 269 | 8 | 15 | 2 |
| 9563 | | LEAR | 08 | 10 | 0155 | N26 | W62 | 08 | 5.3 | | BG | FSI | 180 | 12 | 16 | 2 |
| 9563 | | TACH | 08 | 10 | 0400 | N25 | W63 | 08 | 5.3 | | | DAI | 265 | 9 | 13 | 3 |
| 9563 | | KAND | 08 | 10 | 0720 | N24 | W65 | 08 | 5.3 | | | FSI | | 11 | 17 | 3 |
| 9563 | | SVTO | 08 | 10 | 0800 | N24 | W66 | 08 | 5.2 | | B | FSI | 370 | 12 | 17 | 3 |
| 9563 | 30618 | MWIL | 08 | 10 | 1430 | N25 | W68 | 08 | 5.3 | 5 | (BG) | | | | | |
| 9563 | | VORO | 08 | 10 | 2122 | N25 | W73 | 08 | 5.2 | | | DAI | 390 | 7 | 15 | 2 |
| 9563 | | LEAR | 08 | 11 | 0345 | N25 | W76 | 08 | 5.3 | | BG | EAI | 240 | 6 | 12 | 3 |
| 9563 | | SVTO | 08 | 11 | 0513 | N26 | W75 | 08 | 5.4 | | BG | FAI | 150 | 4 | 21 | 3 |
| 9563 | | KAND | 08 | 11 | 0750 | N27 | W71 | 08 | 5.8 | | | CAO | | 2 | 3 | 2 |
| 9563 | | RAMY | 08 | 11 | 1135 | N25 | W76 | 08 | 5.6 | | B | DSO | 90 | 2 | 5 | 3 |
| 9563 | | HOLL | 08 | 11 | 1400 | N26 | W75 | 08 | 5.7 | | B | DSO | 210 | 3 | 5 | 4 |
| 9563 | 30618 | MWIL | 08 | 11 | 1430 | N26 | W75 | 08 | 5.8 | 5 | (AF) | | | | | |
| 9563 | | VORO | 08 | 11 | 2130 | N26 | W77 | 08 | 5.9 | | | DAO | 111 | 2 | 2 | 3 |
| 9563 | | LEAR | 08 | 12 | 0050 | N26 | W82 | 08 | 5.7 | | B | DAO | 120 | 3 | 6 | 3 |
| 9569 | 30625 | MWIL | 08 | 03 | 1500 | S17 | E45 | 08 | 7.0 | 3 | (B ) | | | | | |
| 9569 | | HOLL | 08 | 04 | 1745 | S17 | E27 | 08 | 6.8 | | A | AXX | 10 | 1 | 1 | 3 |
| 9569 | | LEAR | 08 | 05 | 0155 | S19 | E22 | 08 | 6.7 | | B | BXO | 10 | 3 | 3 | 3 |
| 9569 | | TACH | 08 | 05 | 0443 | S17 | E19 | 08 | 6.6 | | | AXX | 3 | 1 | 1 | 3 |
| 9569 | | SVTO | 08 | 05 | 0815 | S18 | E20 | 08 | 6.9 | | B | DSO | 20 | 4 | 4 | 3 |
| 9569 | | RAMY | 08 | 05 | 1235 | S17 | E17 | 08 | 6.8 | | B | BXO | 10 | 2 | 4 | 2 |
| 9569 | 30628 | MWIL | 08 | 05 | 1500 | S18 | E16 | 08 | 6.8 | 4 | (B ) | | | | | |
| 9569 | | HOLL | 08 | 05 | 1545 | S20 | E12 | 08 | 6.6 | | B | BXO | 20 | 4 | 5 | 3 |
| 9569 | | LEAR | 08 | 06 | 0035 | S17 | E10 | 08 | 6.8 | | B | DAO | 30 | 4 | 4 | 1 |
| 9569 | | TACH | 08 | 06 | 0515 | S17 | E06 | 08 | 6.7 | | | BRO | 49 | 4 | 3 | 4 |
| 9569 | | SVTO | 08 | 06 | 0534 | S17 | E08 | 08 | 6.8 | | B | DAO | 50 | 8 | 5 | 3 |
| 9569 | | KAND | 08 | 06 | 0830 | S18 | E06 | 08 | 6.8 | | | CAO | | 7 | 6 | 3 |
| 9569 | | RAMY | 08 | 06 | 1150 | S18 | E03 | 08 | 6.7 | | B | DSO | 40 | 6 | 5 | 2 |
| 9569 | | HOLL | 08 | 06 | 1415 | S19 | W01 | 08 | 6.5 | | B | DAO | 70 | 13 | 6 | 3 |
| 9569 | 30628 | MWIL | 08 | 06 | 1445 | S17 | E03 | 08 | 6.8 | 5 | (B ) | | | | | |
| 9569 | | LEAR | 08 | 07 | 0145 | S18 | W04 | 08 | 6.8 | | B | DAO | 150 | 15 | 6 | 4 |
| 9569 | | VORO | 08 | 07 | 0257 | S17 | W04 | 08 | 6.8 | | | CAI | 212 | 11 | 5 | 3 |
| 9569 | | TACH | 08 | 07 | 0524 | S17 | W07 | 08 | 6.7 | | | CAI | 170 | 8 | 4 | 3 |
| 9569 | | SVTO | 08 | 07 | 0544 | S18 | W04 | 08 | 6.9 | | B | DAO | 150 | 10 | 7 | 3 |
| 9569 | | KAND | 08 | 07 | 0700 | S17 | W07 | 08 | 6.7 | | | DAO | | 8 | 6 | 4 |
| 9569 | | RAMY | 08 | 07 | 1220 | S17 | W08 | 08 | 6.9 | | B | DSO | 170 | 8 | 6 | 3 |
| 9569 | 30628 | MWIL | 08 | 07 | 1430 | S17 | W10 | 08 | 6.8 | 5 | (B ) | | | | | |
| 9569 | | HOLL | 08 | 07 | 1645 | S18 | W11 | 08 | 6.9 | | B | DAI | 230 | 12 | 6 | 3 |
| 9569 | | LEAR | 08 | 08 | 0020 | S17 | W16 | 08 | 6.8 | | B | DAI | 200 | 14 | 7 | 2 |
| 9569 | | TACH | 08 | 08 | 0524 | S17 | W18 | 08 | 6.8 | | | DAI | 291 | 9 | 4 | 3 |
| 9569 | | SVTO | 08 | 08 | 0540 | S18 | W18 | 08 | 6.9 | | B | DKO | 280 | 14 | 8 | 3 |
| 9569 | | KAND | 08 | 08 | 0845 | S17 | W20 | 08 | 6.8 | | | DAO | | 11 | 7 | 4 |
| 9569 | | RAMY | 08 | 08 | 1230 | S18 | W23 | 08 | 6.8 | | B | DAI | 190 | 11 | 6 | 3 |
| 9569 | 30628 | MWIL | 08 | 08 | 1430 | S18 | W23 | 08 | 6.8 | 5 | (B ) | | | | | |
| 9569 | | HOLL | 08 | 08 | 1550 | S19 | W24 | 08 | 6.8 | | B | DAI | 190 | 16 | 6 | 3 |
| 9569 | | VORO | 08 | 08 | 2123 | S18 | W26 | 08 | 6.9 | | | CAC | 365 | 15 | 5 | 2 |
| 9569 | | LEAR | 08 | 09 | 0030 | S17 | W28 | 08 | 6.9 | | B | DKO | 250 | 20 | 8 | 3 |
| 9569 | | TACH | 08 | 09 | 0509 | S17 | W30 | 08 | 6.9 | | | DAI | 268 | 6 | 4 | 2 |
| 9569 | | SVTO | 08 | 09 | 0545 | S17 | W33 | 08 | 6.7 | | B | DAO | 240 | 15 | 6 | 3 |
| 9569 | | KAND | 08 | 09 | 1010 | S17 | W35 | 08 | 6.8 | | | DAI | | 13 | 7 | 5 |
| 9569 | | RAMY | 08 | 09 | 1145 | S18 | W34 | 08 | 6.9 | | B | DSI | 190 | 8 | 7 | 2 |
| 9569 | 30628 | MWIL | 08 | 09 | 1445 | S18 | W36 | 08 | 6.9 | 5 | (BP) | | | | | |
| 9569 | | VORO | 08 | 09 | 2120 | S18 | W39 | 08 | 6.9 | | | CAI | 368 | 3 | 4 | 2 |
| 9569 | | LEAR | 08 | 10 | 0155 | S18 | W41 | 08 | 6.9 | | B | DSO | 150 | 10 | 9 | 2 |
| 9569 | | TACH | 08 | 10 | 0400 | S16 | W42 | 08 | 7.0 | | | CAI | 290 | 5 | 4 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9569 | | KAND | 08 | 10 | 0720 | S18 | W45 | 08 | 6.9 | | | CAO | | 8 | 6 | 3 |
| 9569 | | SVTO | 08 | 10 | 0800 | S18 | W46 | 08 | 6.8 | | B | DAO | 210 | 6 | 5 | 3 |
| 9569 | 30628 | MWIL | 08 | 10 | 1430 | S18 | W49 | 08 | 6.9 | 5 | (BP) | | | | | |
| 9569 | | VORO | 08 | 10 | 2122 | S17 | W54 | 08 | 6.8 | | | HAX | 262 | 4 | | 2 |
| 9569 | | LEAR | 08 | 11 | 0345 | S17 | W58 | 08 | 6.7 | | B | DAO | 120 | 3 | 4 | 3 |
| 9569 | | SVTO | 08 | 11 | 0513 | S19 | W57 | 08 | 6.9 | | B | CSO | 140 | 3 | 4 | 3 |
| 9569 | | KAND | 08 | 11 | 0750 | S17 | W60 | 08 | 6.8 | | | CSO | | 4 | 4 | 2 |
| 9569 | | RAMY | 08 | 11 | 1135 | S19 | W62 | 08 | 6.7 | | B | DAO | 90 | 3 | 3 | 3 |
| 9569 | | HOLL | 08 | 11 | 1400 | S17 | W64 | 08 | 6.7 | | B | CAO | 170 | 3 | 5 | 4 |
| 9569 | 30628 | MWIL | 08 | 11 | 1430 | S18 | W62 | 08 | 6.9 | 5 | (BP) | | | | | |
| 9569 | | VORO | 08 | 11 | 2130 | S17 | W67 | 08 | 6.8 | | | HAX | 121 | 2 | | 3 |
| 9569 | | LEAR | 08 | 12 | 0050 | S17 | W69 | 08 | 6.8 | | B | CAO | 100 | 6 | 5 | 3 |
| 9569 | | SVTO | 08 | 12 | 0540 | S18 | W74 | 08 | 6.6 | | A | HSX | 60 | 1 | 3 | 3 |
| 9569 | | KAND | 08 | 12 | 0935 | S16 | W73 | 08 | 6.9 | | | HS | | 1 | 2 | 3 |
| 9569 | 30628 | MWIL | 08 | 12 | 1445 | S17 | W76 | 08 | 6.8 | 4 | (AP) | | | | | |
| 9569 | | LEAR | 08 | 13 | 0057 | S17 | W82 | 08 | 6.8 | | A | HAX | 60 | 1 | 2 | 1 |
| 9566 | | LEAR | 08 | 01 | 0305 | N15 | E74 | 08 | 6.7 | | B | DAO | 50 | 3 | 5 | 3 |
| 9566 | | TACH | 08 | 01 | 0628 | N16 | E72 | 08 | 6.7 | | | AXX | 2 | 1 | 1 | 2 |
| 9566 | | SVTO | 08 | 01 | 0713 | N16 | E72 | 08 | 6.8 | | B | DSO | 60 | 3 | 5 | 2 |
| 9566 | | KAND | 08 | 01 | 0745 | N15 | E71 | 08 | 6.7 | | | BXO | | 3 | 6 | 3 |
| 9566 | | RAMY | 08 | 01 | 1125 | N19 | E68 | 08 | 6.7 | | B | BXO | 20 | 5 | 5 | 3 |
| 9566 | 30621 | MWIL | 08 | 01 | 1500 | N17 | E68 | 08 | 6.8 | 4 | (B ) | | | | | |
| 9566 | | LEAR | 08 | 02 | 0030 | N15 | E62 | 08 | 6.7 | | B | DAO | 70 | 5 | 5 | 2 |
| 9566 | | SVTO | 08 | 02 | 0620 | N17 | E60 | 08 | 6.8 | | B | CRO | 40 | 3 | 6 | 2 |
| 9566 | | TACH | 08 | 02 | 0640 | N17 | E61 | 08 | 6.9 | | | AXX | 5 | 1 | 1 | 3 |
| 9566 | | HOLL | 08 | 02 | 1430 | N17 | E55 | 08 | 6.8 | | B | BXO | 50 | 6 | 7 | 4 |
| 9566 | 30621 | MWIL | 08 | 02 | 1500 | N17 | E55 | 08 | 6.8 | 4 | (BF) | | | | | |
| 9566 | | SVTO | 08 | 03 | 0555 | N18 | E43 | 08 | 6.5 | | B | BXO | 30 | 7 | 4 | 3 |
| 9566 | | KAND | 08 | 03 | 0650 | N17 | E42 | 08 | 6.5 | | | BXO | | 4 | 3 | 4 |
| 9566 | | RAMY | 08 | 03 | 1218 | N19 | E39 | 08 | 6.5 | | B | CRO | 10 | 3 | 2 | 3 |
| 9566 | | HOLL | 08 | 03 | 1500 | N16 | E38 | 08 | 6.5 | | B | BXO | 20 | 5 | 3 | 3 |
| 9566 | 30621 | MWIL | 08 | 03 | 1500 | N18 | E40 | 08 | 6.7 | 3 | (B ) | | | | | |
| 9566 | | VORO | 08 | 03 | 2145 | N18 | E36 | 08 | 6.6 | | | CSO | 102 | 8 | 6 | 2 |
| 9566 | | LEAR | 08 | 04 | 0100 | N17 | E34 | 08 | 6.6 | | B | DRO | 30 | 14 | 7 | 4 |
| 9566 | | SVTO | 08 | 04 | 0545 | N17 | E32 | 08 | 6.7 | | B | DAO | 60 | 16 | 9 | 3 |
| 9566 | | TACH | 08 | 04 | 0550 | N17 | E30 | 08 | 6.5 | | | DAI | 189 | 7 | 3 | 3 |
| 9566 | | KAND | 08 | 04 | 0815 | N17 | E30 | 08 | 6.6 | | | CAI | | 18 | 8 | 3 |
| 9566 | | RAMY | 08 | 04 | 1205 | N19 | E27 | 08 | 6.6 | | B | DSI | 110 | 12 | 8 | 3 |
| 9566 | 30621 | MWIL | 08 | 04 | 1430 | N17 | E26 | 08 | 6.6 | 5 | (BG) | | | | | |
| 9566 | | HOLL | 08 | 04 | 1745 | N17 | E24 | 08 | 6.6 | | B | DAO | 100 | 22 | 8 | 3 |
| 9566 | | LEAR | 08 | 05 | 0155 | N16 | E19 | 08 | 6.5 | | BG | DAI | 120 | 27 | 7 | 3 |
| 9566 | | TACH | 08 | 05 | 0443 | N17 | E16 | 08 | 6.4 | | | CAI | 189 | 7 | 4 | 3 |
| 9566 | | SVTO | 08 | 05 | 0815 | N17 | E17 | 08 | 6.6 | | BG | DSO | 100 | 25 | 10 | 3 |
| 9566 | | KAND | 08 | 05 | 0840 | N17 | E17 | 08 | 6.6 | | | EAI | | 18 | 11 | 2 |
| 9566 | | RAMY | 08 | 05 | 1235 | N18 | E13 | 08 | 6.5 | | B | EAI | 250 | 20 | 11 | 2 |
| 9566 | 30621 | MWIL | 08 | 05 | 1500 | N17 | E12 | 08 | 6.5 | 5 | (BG) | | | | | |
| 9566 | | HOLL | 08 | 05 | 1545 | N15 | E12 | 08 | 6.6 | | BG | DAI | 100 | 15 | 8 | 3 |
| 9566 | | VORO | 08 | 05 | 2253 | N17 | E08 | 08 | 6.6 | | | DSI | 201 | 11 | 6 | 3 |
| 9566 | | LEAR | 08 | 06 | 0035 | N17 | E07 | 08 | 6.5 | | BG | DAO | 150 | 14 | 7 | 1 |
| 9566 | | TACH | 08 | 06 | 0515 | N17 | E03 | 08 | 6.4 | | | DAI | 212 | 6 | 6 | 4 |
| 9566 | | SVTO | 08 | 06 | 0534 | N18 | E04 | 08 | 6.5 | | BG | DAO | 180 | 11 | 9 | 3 |
| 9566 | | KAND | 08 | 06 | 0830 | N17 | E04 | 08 | 6.6 | | | DAO | | 15 | 9 | 3 |
| 9566 | | RAMY | 08 | 06 | 1150 | N17 | E01 | 08 | 6.6 | | B | DAO | 100 | 8 | 8 | 2 |
| 9566 | | HOLL | 08 | 06 | 1415 | N18 | E01 | 08 | 6.7 | | B | DAO | 140 | 26 | 9 | 3 |
| 9566 | 30621 | MWIL | 08 | 06 | 1445 | N17 | W01 | 08 | 6.5 | 5 | (B ) | | | | | |
| 9566 | | LEAR | 08 | 07 | 0145 | N17 | W06 | 08 | 6.6 | | B | DAO | 170 | 16 | 9 | 4 |
| 9566 | | VORO | 08 | 07 | 0257 | N17 | W08 | 08 | 6.5 | | | DAI | 223 | 6 | 6 | 3 |
| 9566 | | TACH | 08 | 07 | 0524 | N17 | W09 | 08 | 6.5 | | | DSI | 226 | 4 | 7 | 3 |
| 9566 | | SVTO | 08 | 07 | 0544 | N17 | W09 | 08 | 6.5 | | B | DAO | 140 | 12 | 9 | 3 |
| 9566 | | KAND | 08 | 07 | 0700 | N17 | W09 | 08 | 6.6 | | | DAI | | 15 | 8 | 4 |
| 9566 | | RAMY | 08 | 07 | 1220 | N17 | W13 | 08 | 6.5 | | B | DSO | 130 | 5 | 7 | 3 |
| 9566 | 30621 | MWIL | 08 | 07 | 1430 | N17 | W13 | 08 | 6.6 | 5 | (B ) | | | | | |
| 9566 | | HOLL | 08 | 07 | 1645 | N17 | W15 | 08 | 6.5 | | B | DAI | 140 | 14 | 8 | 3 |
| 9566 | | LEAR | 08 | 08 | 0020 | N17 | W19 | 08 | 6.6 | | B | DAO | 150 | 12 | 8 | 2 |
| 9566 | | TACH | 08 | 08 | 0524 | N18 | W22 | 08 | 6.5 | | | DAI | 283 | 11 | 6 | 3 |
| 9566 | | SVTO | 08 | 08 | 0540 | N17 | W24 | 08 | 6.4 | | B | DAO | 140 | 16 | 9 | 3 |
| 9566 | | KAND | 08 | 08 | 0845 | N18 | W24 | 08 | 6.5 | | | DAO | | 13 | 9 | 4 |
| 9566 | | RAMY | 08 | 08 | 1230 | N17 | W26 | 08 | 6.5 | | B | DAI | 130 | 15 | 9 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9566 | 30621 | MWIL | 08 | 08 | 1430 | N17 | W26 | 08 | 6.6 | 5 | (BG) | | | | | |
| 9566 | | HOLL | 08 | 08 | 1550 | N16 | W29 | 08 | 6.5 | | B | DAI | 140 | 16 | 10 | 3 |
| 9566 | | VORO | 08 | 08 | 2123 | N17 | W31 | 08 | 6.5 | | | DAI | 314 | 5 | 6 | 2 |
| 9566 | | LEAR | 08 | 09 | 0030 | N18 | W32 | 08 | 6.6 | | BG | DKI | 220 | 18 | 9 | 3 |
| 9566 | | TACH | 08 | 09 | 0509 | N18 | W35 | 08 | 6.5 | | | DAI | 337 | 9 | 6 | 2 |
| 9566 | | SVTO | 08 | 09 | 0545 | N17 | W36 | 08 | 6.5 | | BG | DAI | 220 | 18 | 11 | 3 |
| 9566 | | KAND | 08 | 09 | 1010 | N18 | W37 | 08 | 6.6 | | | DAI | | 13 | 11 | 5 |
| 9566 | | RAMY | 08 | 09 | 1145 | N17 | W38 | 08 | 6.6 | | B | DSI | 260 | 10 | 10 | 2 |
| 9566 | 30621 | MWIL | 08 | 09 | 1445 | N17 | W40 | 08 | 6.6 | 5 | (BG) | | | | | |
| 9566 | | VORO | 08 | 09 | 2120 | N17 | W44 | 08 | 6.5 | | | DAI | 201 | 4 | 6 | 2 |
| 9566 | | LEAR | 08 | 10 | 0155 | N18 | W46 | 08 | 6.6 | | BG | DAO | 170 | 8 | 8 | 2 |
| 9566 | | TACH | 08 | 10 | 0400 | N17 | W47 | 08 | 6.6 | | | CAI | 80 | 4 | 6 | 3 |
| 9566 | | KAND | 08 | 10 | 0720 | N17 | W50 | 08 | 6.5 | | | DAO | | 7 | 8 | 3 |
| 9566 | | SVTO | 08 | 10 | 0800 | N17 | W51 | 08 | 6.4 | | BG | DAO | 210 | 10 | 8 | 3 |
| 9566 | 30621 | MWIL | 08 | 10 | 1430 | N17 | W53 | 08 | 6.6 | 5 | (BG) | | | | | |
| 9566 | | VORO | 08 | 10 | 2122 | N17 | W57 | 08 | 6.5 | | | DAI | 282 | 8 | 6 | 2 |
| 9566 | | LEAR | 08 | 11 | 0345 | N18 | W62 | 08 | 6.4 | | BG | DAO | 190 | 8 | 7 | 3 |
| 9566 | | SVTO | 08 | 11 | 0513 | N17 | W62 | 08 | 6.5 | | BG | DAO | 130 | 8 | 8 | 3 |
| 9566 | | KAND | 08 | 11 | 0750 | N18 | W63 | 08 | 6.5 | | | DAI | | 11 | 7 | 2 |
| 9566 | | RAMY | 08 | 11 | 1135 | N16 | W62 | 08 | 6.8 | | BG | DAO | 150 | 8 | 8 | 3 |
| 9566 | | HOLL | 08 | 11 | 1400 | N17 | W66 | 08 | 6.6 | | BG | DAI | 310 | 16 | 8 | 4 |
| 9566 | 30621 | MWIL | 08 | 11 | 1430 | N17 | W66 | 08 | 6.6 | 5 | (D ) | | | | | |
| 9566 | | VORO | 08 | 11 | 2130 | N17 | W69 | 08 | 6.6 | | | DAI | 214 | 10 | 5 | 3 |
| 9566 | | LEAR | 08 | 12 | 0050 | N18 | W72 | 08 | 6.5 | | BG | DAI | 220 | 20 | 9 | 3 |
| 9566 | | SVTO | 08 | 12 | 0540 | N16 | W75 | 08 | 6.5 | | BG | DAO | 180 | 3 | 9 | 3 |
| 9566 | | KAND | 08 | 12 | 0935 | N18 | W76 | 08 | 6.6 | | | DAO | | 4 | 9 | 3 |
| 9566 | 30621 | MWIL | 08 | 12 | 1445 | N17 | W78 | 08 | 6.7 | 5 | (B ) | | | | | |
| 9566 | | VORO | 08 | 12 | 2154 | N19 | W82 | 08 | 6.6 | | | HAX | 153 | 1 | | 3 |
| 9566 | | LEAR | 08 | 13 | 0057 | N18 | W84 | 08 | 6.6 | | B | CAO | 80 | 3 | 5 | 1 |
| 9566 | | SVTO | 08 | 13 | 0545 | N18 | W87 | 08 | 6.6 | | A | AXX | 30 | 2 | 1 | 2 |
| 9576A | | KAND | 08 | 05 | 0840 | N04 | E29 | 08 | 7.5 | | | BXO | | 3 | 5 | 2 |
| 9576 | 30631 | MWIL | 08 | 07 | 1430 | N11 | E05 | 08 | 8.0 | 4 | (AP) | | | | | |
| 9576 | 30631 | MWIL | 08 | 08 | 1430 | N11 | W09 | 08 | 7.9 | 4 | (AP) | | | | | |
| 9576 | | LEAR | 08 | 09 | 0030 | N11 | W15 | 08 | 7.9 | | A | AXX | 10 | 1 | 1 | 3 |
| 9576 | | VORO | 08 | 09 | 2120 | N11 | W26 | 08 | 7.9 | | | AXX | 11 | 1 | | 2 |
| 9576 | | LEAR | 08 | 10 | 0155 | N11 | W30 | 08 | 7.8 | | A | AXX | | 1 | | 2 |
| 9576 | | TACH | 08 | 10 | 0400 | N11 | W31 | 08 | 7.8 | | | AXX | 1 | 1 | 1 | 3 |
| 9576 | | KAND | 08 | 10 | 0720 | N10 | W32 | 08 | 7.9 | | | AX | | 1 | | 3 |
| 9576 | | SVTO | 08 | 10 | 0800 | N10 | W34 | 08 | 7.8 | | A | AXX | | 1 | | 3 |
| 9576 | 30631 | MWIL | 08 | 10 | 1430 | N10 | W37 | 08 | 7.8 | 4 | (AP) | | | | | |
| 9576 | | LEAR | 08 | 11 | 0345 | N10 | W40 | 08 | 8.1 | | A | HSX | 40 | 1 | 2 | 3 |
| 9576 | | KAND | 08 | 11 | 0750 | N12 | W45 | 08 | 7.9 | | | CRO | | 2 | 2 | 2 |
| 9576 | | RAMY | 08 | 11 | 1135 | N11 | W48 | 08 | 7.9 | | B | DSO | 20 | 2 | 3 | 3 |
| 9576 | | HOLL | 08 | 11 | 1400 | N12 | W48 | 08 | 8.0 | | B | CSO | 20 | 2 | 3 | 4 |
| 9576 | 30631 | MWIL | 08 | 11 | 1430 | N11 | W49 | 08 | 7.9 | 5 | (BF) | | | | | |
| 9576 | | VORO | 08 | 11 | 2130 | N12 | W53 | 08 | 7.9 | | | CAO | 34 | 2 | 4 | 3 |
| 9576 | | LEAR | 08 | 12 | 0050 | N12 | W54 | 08 | 8.0 | | B | DSO | 30 | 2 | 5 | 3 |
| 9576 | | SVTO | 08 | 12 | 0540 | N11 | W58 | 08 | 7.9 | | B | CRO | 20 | 2 | 5 | 3 |
| 9576 | | KAND | 08 | 12 | 0935 | N12 | W60 | 08 | 7.9 | | | CSO | | 2 | 6 | 3 |
| 9576 | 30631 | MWIL | 08 | 12 | 1445 | N12 | W62 | 08 | 7.9 | 5 | (BF) | | | | | |
| 9576 | | LEAR | 08 | 13 | 0057 | N13 | W68 | 08 | 7.9 | | B | CRO | 30 | 2 | 5 | 1 |
| 9576 | | SVTO | 08 | 13 | 0545 | N14 | W69 | 08 | 8.0 | | A | AXX | 10 | 1 | 1 | 2 |
| 9576 | | TACH | 08 | 13 | 0547 | N15 | W68 | 08 | 8.1 | | | AXX | 3 | 1 | 1 | 3 |
| 9576 | | RAMY | 08 | 13 | 1251 | N11 | W74 | 08 | 8.0 | | A | AXX | 10 | 1 | | 2 |
| 9576 | 30631 | MWIL | 08 | 13 | 1445 | N14 | W75 | 08 | 7.9 | 3 | (AF) | | | | | |
| 9572 | | VORO | 08 | 03 | 2145 | N21 | E73 | 08 | 9.5 | | | AXX | 40 | 2 | 6 | 2 |
| 9572 | 30632 | MWIL | 08 | 07 | 1430 | N16 | E26 | 08 | 9.6 | 4 | (AP) | | | | | |
| 9572 | | HOLL | 08 | 07 | 1645 | N16 | E26 | 08 | 9.7 | | A | HSX | 20 | 1 | 2 | 3 |
| 9572 | | LEAR | 08 | 08 | 0020 | N16 | E21 | 08 | 9.6 | | A | HSX | 20 | 1 | 1 | 2 |
| 9572 | 30632 | MWIL | 08 | 08 | 1430 | N15 | E15 | 08 | 9.7 | 4 | (AP) | | | | | |
| 9572A | 30633 | MWIL | 08 | 07 | 1430 | S21 | E41 | 08 | 10.7 | 3 | (B ) | | | | | |
| 9572A | 30633 | MWIL | 08 | 09 | 1445 | S22 | E13 | 08 | 10.6 | 4 | (AP) | | | | | |
| 9574 | 30637 | MWIL | 08 | 09 | 1445 | S03 | E22 | 08 | 11.2 | 3 | (BG) | | | | | |
| 9574 | | TACH | 08 | 10 | 0400 | S02 | E13 | 08 | 11.1 | | | AR | 6 | 2 | 2 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9574 | | KAND | 08 | 10 | 0720 | S03 | E13 | 08 | 11.3 | | | BXO | | 7 | 4 | 3 |
| 9574 | | SVTO | 08 | 10 | 0800 | S03 | E12 | 08 | 11.2 | | B | CRO | 30 | 9 | 4 | 3 |
| 9574 | 30637 | MWIL | 08 | 10 | 1430 | S03 | E09 | 08 | 11.3 | 5 | (B ) | | | | | |
| 9574 | | VORO | 08 | 10 | 2122 | S03 | E05 | 08 | 11.3 | | | DAI | 204 | 10 | 4 | 2 |
| 9574 | | LEAR | 08 | 11 | 0345 | S04 | E00 | 08 | 11.1 | | B | DKI | 240 | 18 | 6 | 3 |
| 9574 | | SVTO | 08 | 11 | 0513 | S04 | E01 | 08 | 11.3 | | B | DKO | 400 | 9 | 7 | 3 |
| 9574 | | KAND | 08 | 11 | 0750 | S03 | W01 | 08 | 11.2 | | | DAI | | 22 | 6 | 2 |
| 9574 | | RAMY | 08 | 11 | 1135 | S04 | W04 | 08 | 11.2 | | B | DAO | 270 | 14 | 7 | 3 |
| 9574 | | HOLL | 08 | 11 | 1400 | S04 | W05 | 08 | 11.2 | | B | DAI | 360 | 25 | 7 | 4 |
| 9574 | 30637 | MWIL | 08 | 11 | 1430 | S04 | W04 | 08 | 11.3 | 5 | (BF) | | | | | |
| 9574 | | VORO | 08 | 11 | 2130 | S03 | W09 | 08 | 11.2 | | | DHI | 498 | 15 | 6 | 3 |
| 9574 | | LEAR | 08 | 12 | 0050 | S04 | W11 | 08 | 11.2 | | BG | DKI | 330 | 28 | 8 | 3 |
| 9574 | | SVTO | 08 | 12 | 0540 | S03 | W15 | 08 | 11.1 | | BG | DAI | 410 | 11 | 9 | 3 |
| 9574 | | KAND | 08 | 12 | 0935 | S03 | W16 | 08 | 11.2 | | | DAO | | 7 | 9 | 3 |
| 9574 | 30637 | MWIL | 08 | 12 | 1445 | S03 | W19 | 08 | 11.2 | 5 | (B ) | | | | | |
| 9574 | | VORO | 08 | 12 | 2154 | S03 | W24 | 08 | 11.1 | | | DHI | 455 | 12 | 9 | 3 |
| 9574 | | LEAR | 08 | 13 | 0057 | S03 | W26 | 08 | 11.1 | | BG | DKI | 320 | 17 | 10 | 1 |
| 9574 | | SVTO | 08 | 13 | 0545 | S05 | W28 | 08 | 11.1 | | B | DAI | 320 | 25 | 10 | 2 |
| 9574 | | TACH | 08 | 13 | 0547 | S02 | W28 | 08 | 11.1 | | | DAI | 426 | 10 | 7 | 3 |
| 9574 | | RAMY | 08 | 13 | 1251 | S05 | W32 | 08 | 11.1 | | B | ESI | 430 | 12 | 11 | 2 |
| 9574 | | HOLL | 08 | 13 | 1400 | S05 | W32 | 08 | 11.2 | | BG | EKI | 390 | 22 | 11 | 3 |
| 9574 | 30637 | MWIL | 08 | 13 | 1445 | S02 | W33 | 08 | 11.1 | 5 | (D ) | | | | | |
| 9574 | | VORO | 08 | 13 | 2338 | S03 | W39 | 08 | 11.1 | | | DHI | 441 | 15 | 9 | 3 |
| 9574 | | LEAR | 08 | 14 | 0030 | S03 | W39 | 08 | 11.1 | | BG | EKI | 380 | 16 | 11 | 4 |
| 9574 | | SVTO | 08 | 14 | 0515 | S05 | W42 | 08 | 11.1 | | B | EAO | 350 | 11 | 12 | 3 |
| 9574 | | KAND | 08 | 14 | 1015 | S03 | W44 | 08 | 11.1 | | | EAO | | 13 | 12 | 4 |
| 9574 | | RAMY | 08 | 14 | 1325 | S03 | W47 | 08 | 11.0 | | B | DAI | 180 | 19 | 10 | 3 |
| 9574 | 30637 | MWIL | 08 | 14 | 1430 | S03 | W45 | 08 | 11.2 | 5 | (BG) | | | | | |
| 9574 | | HOLL | 08 | 14 | 1445 | S05 | W45 | 08 | 11.2 | | B | EKO | 270 | 32 | 11 | 3 |
| 9574 | | VORO | 08 | 14 | 2235 | S03 | W52 | 08 | 11.0 | | | DHI | 263 | 12 | 9 | 3 |
| 9574 | | SVTO | 08 | 15 | 0600 | S05 | W57 | 08 | 11.0 | | B | EAO | 230 | 17 | 12 | 3 |
| 9574 | | KAND | 08 | 15 | 0730 | S03 | W56 | 08 | 11.1 | | | EAO | | 11 | 11 | 4 |
| 9574 | | RAMY | 08 | 15 | 1300 | S04 | W60 | 08 | 11.0 | | B | DAO | 140 | 9 | 10 | 3 |
| 9574 | 30637 | MWIL | 08 | 15 | 1500 | S02 | W60 | 08 | 11.1 | 4 | (B ) | | | | | |
| 9574 | | VORO | 08 | 16 | 0335 | S04 | W70 | 08 | 10.9 | | | DSO | 279 | 2 | 10 | 3 |
| 9574 | | TACH | 08 | 16 | 0529 | S03 | W69 | 08 | 11.1 | | | DAI | 150 | 2 | 10 | 4 |
| 9574 | | SVTO | 08 | 16 | 0622 | S04 | W69 | 08 | 11.1 | | B | FAO | 160 | 3 | 16 | 2 |
| 9574 | | KAND | 08 | 16 | 0835 | S03 | W70 | 08 | 11.1 | | | EAO | | 2 | 13 | 5 |
| 9574 | | RAMY | 08 | 16 | 1222 | S05 | W74 | 08 | 11.0 | | B | EAO | 150 | 3 | 13 | 3 |
| 9574 | 30637 | MWIL | 08 | 16 | 1430 | S03 | W74 | 08 | 11.1 | 5 | (B ) | | | | | |
| 9574 | | HOLL | 08 | 16 | 1448 | S03 | W75 | 08 | 11.0 | | B | ESO | 130 | 3 | 11 | 2 |
| 9574 | | VORO | 08 | 16 | 2240 | S03 | W74 | 08 | 11.4 | | | HAX | 104 | 2 | | 3 |
| 9574 | | LEAR | 08 | 17 | 0200 | S02 | W78 | 08 | 11.2 | | A | HSX | 60 | 1 | 2 | 4 |
| 9574 | | TACH | 08 | 17 | 0512 | S02 | W77 | 08 | 11.5 | | | AXX | 10 | 1 | 1 | 4 |
| 9574 | | SVTO | 08 | 17 | 0638 | S04 | W84 | 08 | 11.0 | | A | HSX | 30 | 1 | 1 | 3 |
| 9574 | | KAND | 08 | 17 | 0910 | S03 | W83 | 08 | 11.2 | | | HS | | 1 | 2 | 3 |
| 9574 | | RAMY | 08 | 17 | 1239 | S06 | W84 | 08 | 11.2 | | A | HSX | 30 | 1 | 3 | 2 |
| 9574 | | HOLL | 08 | 17 | 1404 | S04 | W83 | 08 | 11.4 | | A | AXX | 20 | 1 | 1 | 4 |
| 9574 | 30637 | MWIL | 08 | 17 | 1500 | S03 | W84 | 08 | 11.3 | 5 | AP | | | | | |
| 9570 | | SVTO | 08 | 05 | 0815 | S10 | E86 | 08 | 11.8 | | A | HSX | 70 | 1 | 3 | 3 |
| 9570 | | RAMY | 08 | 05 | 1235 | S08 | E82 | 08 | 11.7 | | A | HSX | 120 | 1 | 6 | 2 |
| 9570 | 30629 | MWIL | 08 | 05 | 1500 | S09 | E78 | 08 | 11.5 | 4 | (AP) | | | | | |
| 9570 | | HOLL | 08 | 05 | 1545 | S14 | E79 | 08 | 11.6 | | A | HAX | 120 | 1 | 2 | 3 |
| 9570 | | VORO | 08 | 05 | 2253 | S09 | E72 | 08 | 11.3 | | | HAX | 235 | 1 | | 3 |
| 9570 | | LEAR | 08 | 06 | 0035 | S10 | E73 | 08 | 11.5 | | A | HAX | 120 | 1 | 2 | 1 |
| 9570 | | TACH | 08 | 06 | 0515 | S09 | E68 | 08 | 11.3 | | | HSX | 115 | 1 | 1 | 4 |
| 9570 | | SVTO | 08 | 06 | 0534 | S09 | E71 | 08 | 11.6 | | A | HAX | 120 | 1 | 4 | 3 |
| 9570 | | KAND | 08 | 06 | 0830 | S10 | E70 | 08 | 11.6 | | | HS | | 1 | 4 | 3 |
| 9570 | | RAMY | 08 | 06 | 1150 | S09 | E66 | 08 | 11.4 | | A | HSX | 180 | 2 | 3 | 2 |
| 9570 | | HOLL | 08 | 06 | 1415 | S15 | E66 | 08 | 11.6 | | B | CSO | 130 | 4 | 6 | 3 |
| 9570 | 30629 | MWIL | 08 | 06 | 1445 | S10 | E64 | 08 | 11.4 | 5 | (BG) | | | | | |
| 9570 | | LEAR | 08 | 07 | 0145 | S12 | E56 | 08 | 11.3 | | B | DAO | 270 | 2 | 4 | 4 |
| 9570 | | VORO | 08 | 07 | 0257 | S10 | E58 | 08 | 11.5 | | | HAX | 290 | 5 | | 3 |
| 9570 | | TACH | 08 | 07 | 0524 | S11 | E53 | 08 | 11.2 | | | CSO | 202 | 2 | 6 | 3 |
| 9570 | | SVTO | 08 | 07 | 0544 | S09 | E56 | 08 | 11.4 | | B | CAO | 140 | 2 | 6 | 3 |
| 9570 | | SVTO | 08 | 07 | 0544 | S16 | E56 | 08 | 11.5 | | A | AXX | | 1 | | 3 |
| 9570 | | KAND | 08 | 07 | 0700 | S10 | E55 | 08 | 11.4 | | | CAO | | 2 | 6 | 4 |
| 9570 | | RAMY | 08 | 07 | 1220 | S10 | E50 | 08 | 11.3 | | B | CSO | 160 | 2 | 6 | 3 |

# S U N S P O T  G R O U P S
## (Ordered by Central Meridian Passage Date)
## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9570 | 30629 | MWIL | 08 | 07 | 1430 | S10 | E50 | 08 | 11.4 | 5 | (BG) | | | | | |
| 9570 | 30635 | MWIL | 08 | 07 | 1430 | S17 | E50 | 08 | 11.4 | 4 | (AP) | | | | | |
| 9570 | | HOLL | 08 | 07 | 1645 | S11 | E50 | 08 | 11.4 | | B | CAO | 160 | 7 | 5 | 3 |
| 9570 | | LEAR | 08 | 08 | 0020 | S11 | E42 | 08 | 11.2 | | B | DAO | 170 | 5 | 7 | 2 |
| 9570 | | TACH | 08 | 08 | 0524 | S08 | E43 | 08 | 11.4 | | | CAO | 303 | 3 | 3 | 3 |
| 9570 | | SVTO | 08 | 08 | 0540 | S09 | E41 | 08 | 11.3 | | B | CAO | 180 | 4 | 8 | 3 |
| 9570 | | KAND | 08 | 08 | 0845 | S10 | E39 | 08 | 11.3 | | | CAO | | 3 | 8 | 4 |
| 9570 | | RAMY | 08 | 08 | 1230 | S11 | E39 | 08 | 11.4 | | A | HSX | 190 | 2 | 3 | 3 |
| 9570 | 30629 | MWIL | 08 | 08 | 1430 | S09 | E37 | 08 | 11.4 | 5 | (AP) | | | | | |
| 9570 | | HOLL | 08 | 08 | 1550 | S11 | E33 | 08 | 11.1 | | B | CAO | 190 | 5 | 8 | 3 |
| 9570 | | VORO | 08 | 08 | 2123 | S10 | E34 | 08 | 11.4 | | | HSX | 249 | 1 | | 2 |
| 9570 | | LEAR | 08 | 09 | 0030 | S12 | E32 | 08 | 11.4 | | B | CKO | 240 | 4 | 3 | 3 |
| 9570 | | TACH | 08 | 09 | 0509 | S09 | E29 | 08 | 11.4 | | | HHX | 300 | 1 | 2 | 2 |
| 9570 | | SVTO | 08 | 09 | 0545 | S13 | E29 | 08 | 11.4 | | B | CSO | 240 | 3 | 4 | 3 |
| 9570 | | KAND | 08 | 09 | 1010 | S11 | E26 | 08 | 11.4 | | | HA | | 1 | 3 | 5 |
| 9570 | | RAMY | 08 | 09 | 1145 | S10 | E27 | 08 | 11.5 | | A | HSX | 160 | 1 | 3 | 2 |
| 9570 | 30629 | MWIL | 08 | 09 | 1445 | S10 | E25 | 08 | 11.5 | 5 | (BP) | | | | | |
| 9570 | | VORO | 08 | 09 | 2120 | S10 | E21 | 08 | 11.5 | | | HHX | 274 | 1 | | 2 |
| 9570 | | LEAR | 08 | 10 | 0155 | S10 | E18 | 08 | 11.4 | | A | HSX | 130 | 2 | 3 | 2 |
| 9570 | | LEAR | 08 | 10 | 0155 | S13 | E24 | 08 | 11.9 | | A | AXX | 10 | 1 | 1 | 2 |
| 9570 | | TACH | 08 | 10 | 0400 | S09 | E17 | 08 | 11.4 | | | HHX | 400 | 1 | 2 | 3 |
| 9570 | | KAND | 08 | 10 | 0720 | S10 | E18 | 08 | 11.6 | | | CSO | | 3 | 12 | 3 |
| 9570 | | SVTO | 08 | 10 | 0800 | S12 | E14 | 08 | 11.4 | | B | CSO | 190 | 2 | 4 | 3 |
| 9570 | 30629 | MWIL | 08 | 10 | 1430 | S11 | E15 | 08 | 11.7 | 5 | (BG) | | | | | |
| 9570 | | VORO | 08 | 10 | 2122 | S10 | E07 | 08 | 11.4 | | | HHX | 254 | 2 | | 2 |
| 9570 | | LEAR | 08 | 11 | 0345 | S12 | E03 | 08 | 11.4 | | B | CSO | 160 | 4 | 4 | 3 |
| 9570 | | SVTO | 08 | 11 | 0513 | S12 | E04 | 08 | 11.5 | | B | CSO | 210 | 3 | 5 | 3 |
| 9570 | | KAND | 08 | 11 | 0750 | S10 | E02 | 08 | 11.5 | | | CAO | | 3 | 3 | 2 |
| 9570 | | RAMY | 08 | 11 | 1135 | S12 | W01 | 08 | 11.4 | | B | CSO | 150 | 5 | 5 | 3 |
| 9570 | | HOLL | 08 | 11 | 1400 | S12 | W03 | 08 | 11.3 | | B | CAO | 170 | 11 | 4 | 4 |
| 9570 | 30629 | MWIL | 08 | 11 | 1430 | S10 | E01 | 08 | 11.7 | 5 | (BG) | | | | | |
| 9570 | | VORO | 08 | 11 | 2130 | S10 | W06 | 08 | 11.4 | | | HHX | 254 | 3 | | 3 |
| 9570 | | LEAR | 08 | 12 | 0050 | S12 | W08 | 08 | 11.4 | | B | CSO | 170 | 10 | 4 | 3 |
| 9570 | | SVTO | 08 | 12 | 0540 | S11 | W11 | 08 | 11.4 | | B | CSO | 200 | 2 | 4 | 3 |
| 9570 | | KAND | 08 | 12 | 0935 | S10 | W08 | 08 | 11.8 | | | EAO | | 10 | 13 | 3 |
| 9570 | 30629 | MWIL | 08 | 12 | 1445 | S09 | W13 | 08 | 11.6 | 5 | (BG) | | | | | |
| 9570 | | VORO | 08 | 12 | 2154 | S10 | W20 | 08 | 11.4 | | | HHX | 214 | 1 | | 3 |
| 9570 | | LEAR | 08 | 13 | 0057 | S12 | W22 | 08 | 11.4 | | B | CSO | 180 | 5 | 4 | 1 |
| 9570 | | SVTO | 08 | 13 | 0545 | S14 | W25 | 08 | 11.3 | | B | CSO | 170 | 8 | 8 | 2 |
| 9570 | | TACH | 08 | 13 | 0547 | S10 | W25 | 08 | 11.4 | | | CAO | 217 | 4 | 2 | 3 |
| 9570 | | RAMY | 08 | 13 | 1251 | S12 | W28 | 08 | 11.4 | | A | HSX | 160 | 1 | 3 | 2 |
| 9570 | | HOLL | 08 | 13 | 1400 | S10 | W29 | 08 | 11.4 | | A | HAX | 160 | 3 | 3 | 3 |
| 9570 | 30629 | MWIL | 08 | 13 | 1445 | S08 | W25 | 08 | 11.7 | 5 | (BG) | | | | | |
| 9570 | | VORO | 08 | 13 | 2338 | S10 | W33 | 08 | 11.5 | | | HHX | 189 | 1 | | 3 |
| 9570 | | LEAR | 08 | 14 | 0030 | S10 | W36 | 08 | 11.3 | | B | CKO | 210 | 2 | 4 | 4 |
| 9570 | | SVTO | 08 | 14 | 0515 | S13 | W37 | 08 | 11.4 | | B | DAO | 200 | 2 | 4 | 3 |
| 9570 | | KAND | 08 | 14 | 1015 | S09 | W35 | 08 | 11.8 | | | DSO | | 7 | 12 | 4 |
| 9570 | | RAMY | 08 | 14 | 1325 | S10 | W41 | 08 | 11.5 | | A | HSX | 130 | 1 | 2 | 3 |
| 9570 | 30629 | MWIL | 08 | 14 | 1430 | S08 | W38 | 08 | 11.7 | 5 | (BG) | | | | | |
| 9570 | | HOLL | 08 | 14 | 1445 | S09 | W42 | 08 | 11.5 | | A | HAX | 130 | 1 | 3 | 3 |
| 9570 | | VORO | 08 | 14 | 2235 | S10 | W47 | 08 | 11.4 | | | HHX | 222 | 2 | | 3 |
| 9570 | | SVTO | 08 | 15 | 0600 | S13 | W52 | 08 | 11.3 | | B | DAO | 140 | 5 | 3 | 3 |
| 9570 | | KAND | 08 | 15 | 0730 | S09 | W48 | 08 | 11.7 | | | CSO | | 4 | 11 | 4 |
| 9570 | | RAMY | 08 | 15 | 1300 | S10 | W54 | 08 | 11.5 | | A | HSX | 140 | 1 | 2 | 3 |
| 9570 | 30629 | MWIL | 08 | 15 | 1500 | S08 | W54 | 08 | 11.6 | 6 | (BP) | | | | | |
| 9570 | | VORO | 08 | 16 | 0335 | S10 | W63 | 08 | 11.4 | | | HHX | 221 | 1 | | 3 |
| 9570 | | KAND | 08 | 16 | 0835 | S09 | W60 | 08 | 11.8 | | | CAO | | 3 | 11 | 5 |
| 9570 | | RAMY | 08 | 16 | 1222 | S11 | W67 | 08 | 11.5 | | A | HSX | 90 | 1 | 2 | 3 |
| 9570 | 30629 | MWIL | 08 | 16 | 1430 | S09 | W65 | 08 | 11.7 | 5 | (BG) | | | | | |
| 9570 | | HOLL | 08 | 16 | 1448 | S10 | W69 | 08 | 11.4 | | A | HAX | 170 | 1 | 2 | 2 |
| 9570 | | VORO | 08 | 16 | 2240 | S09 | W72 | 08 | 11.5 | | | HHX | 207 | 1 | | 3 |
| 9570 | | LEAR | 08 | 17 | 0200 | S08 | W78 | 08 | 11.2 | | A | HSX | 60 | 1 | 2 | 4 |
| 9570 | | TACH | 08 | 17 | 0512 | S10 | W78 | 08 | 11.3 | | | HSX | 50 | 1 | 2 | 4 |
| 9570 | | SVTO | 08 | 17 | 0638 | S11 | W82 | 08 | 11.1 | | A | HAX | 30 | 1 | 5 | 3 |
| 9570 | | KAND | 08 | 17 | 0910 | S10 | W81 | 08 | 11.3 | | | HS | | 1 | 3 | 3 |
| 9570 | | RAMY | 08 | 17 | 1239 | S12 | W83 | 08 | 11.3 | | A | HAX | 90 | 1 | 6 | 2 |
| 9570 | | HOLL | 08 | 17 | 1404 | S10 | W86 | 08 | 11.1 | | A | HAX | 90 | 1 | 1 | 4 |
| 9570 | 30629 | MWIL | 08 | 17 | 1500 | S09 | W80 | 08 | 11.6 | 4 | AP | | | | | |
| 9577 | 30634 | MWIL | 08 | 07 | 1430 | N13 | E55 | 08 | 11.7 | 4 | (AP) | | | | | |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

### AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9577 | | LEAR | 08 | 12 | 0050 | N16 | W03 | 08 | 11.8 | | B | CSO | 20 | 3 | 2 | 3 |
| 9577 | | SVTO | 08 | 12 | 0540 | N16 | W06 | 08 | 11.8 | | B | CRO | 10 | 2 | 2 | 3 |
| 9577 | | SVTO | 08 | 15 | 0600 | N13 | W54 | 08 | 11.2 | | B | BXO | 60 | 7 | 4 | 3 |
| 9577 | | KAND | 08 | 15 | 0730 | N14 | W52 | 08 | 11.4 | | | CAO | | 2 | 3 | 4 |
| 9577 | | RAMY | 08 | 15 | 1300 | N13 | W56 | 08 | 11.3 | | B | DSO | 40 | 6 | 5 | 3 |
| 9577 | 30647 | MWIL | 08 | 15 | 1500 | N15 | W55 | 08 | 11.5 | 4 | (B ) | | | | | |
| 9577 | | VORO | 08 | 16 | 0335 | N13 | W59 | 08 | 11.7 | | | HAX | 65 | 1 | | 3 |
| 9577 | | TACH | 08 | 16 | 0529 | N14 | W63 | 08 | 11.5 | | | CAO | 32 | 3 | 4 | 4 |
| 9577 | | SVTO | 08 | 16 | 0622 | N13 | W66 | 08 | 11.3 | | B | DAO | 120 | 4 | 6 | 2 |
| 9577 | | KAND | 08 | 16 | 0835 | N15 | W65 | 08 | 11.4 | | | DSO | | 3 | 5 | 5 |
| 9577 | | RAMY | 08 | 16 | 1222 | N13 | W68 | 08 | 11.4 | | B | DSO | 70 | 3 | 5 | 3 |
| 9577 | 30647 | MWIL | 08 | 16 | 1430 | N15 | W68 | 08 | 11.4 | 4 | (BG) | | | | | |
| 9577 | | HOLL | 08 | 16 | 1448 | N13 | W70 | 08 | 11.3 | | B | DSO | 120 | 3 | 5 | 2 |
| 9577 | | VORO | 08 | 16 | 2240 | N14 | W76 | 08 | 11.2 | | | HAX | 33 | 1 | | 3 |
| 9577 | | LEAR | 08 | 17 | 0200 | N15 | W80 | 08 | 11.0 | | A | HSX | 10 | 1 | 1 | 4 |
| 9577 | | TACH | 08 | 17 | 0512 | N14 | W79 | 08 | 11.2 | | | AXX | 10 | 1 | 1 | 4 |
| 9577 | 30647 | MWIL | 08 | 17 | 1500 | N14 | W84 | 08 | 11.3 | 4 | AP | | | | | |
| 9577B | 30642 | MWIL | 08 | 12 | 1445 | N05 | W11 | 08 | 11.8 | 4 | (AP) | | | | | |
| 9578 | | HOLL | 08 | 11 | 1400 | S09 | E07 | 08 | 12.1 | | B | BXO | 20 | 7 | 3 | 4 |
| 9578 | | VORO | 08 | 11 | 2130 | S10 | E04 | 08 | 12.2 | | | BXO | 19 | 2 | 1 | 3 |
| 9578 | | LEAR | 08 | 12 | 0050 | S10 | E01 | 08 | 12.1 | | B | CAO | 20 | 11 | 6 | 3 |
| 9578 | | SVTO | 08 | 12 | 0540 | S10 | W01 | 08 | 12.2 | | B | CAO | 30 | 4 | 4 | 3 |
| 9578 | | VORO | 08 | 12 | 2154 | S09 | W10 | 08 | 12.2 | | | BXO | 25 | 3 | 2 | 3 |
| 9578 | | LEAR | 08 | 13 | 0057 | S08 | W12 | 08 | 12.1 | | B | DSO | 40 | 9 | 5 | 1 |
| 9578 | | SVTO | 08 | 13 | 0545 | S08 | W16 | 08 | 12.0 | | B | DAO | 40 | 11 | 7 | 2 |
| 9578 | | TACH | 08 | 13 | 0547 | S07 | W15 | 08 | 12.1 | | | BRO | 20 | 4 | 3 | 3 |
| 9578 | | RAMY | 08 | 13 | 1251 | S09 | W19 | 08 | 12.1 | | B | DSO | 60 | 5 | 6 | 2 |
| 9578 | | HOLL | 08 | 13 | 1400 | S09 | W20 | 08 | 12.1 | | B | DAO | 70 | 8 | 4 | 3 |
| 9578 | | VORO | 08 | 13 | 2338 | S09 | W25 | 08 | 12.1 | | | CSO | 58 | 5 | 5 | 3 |
| 9578 | | LEAR | 08 | 14 | 0030 | S07 | W25 | 08 | 12.1 | | B | DAO | 40 | 5 | 5 | 4 |
| 9578 | | SVTO | 08 | 14 | 0515 | S09 | W28 | 08 | 12.1 | | B | DAO | 80 | 8 | 7 | 3 |
| 9578 | | RAMY | 08 | 14 | 1325 | S08 | W34 | 08 | 12.0 | | B | CSO | 10 | 7 | 5 | 3 |
| 9578 | | HOLL | 08 | 14 | 1445 | S09 | W34 | 08 | 12.1 | | B | BXO | 20 | 7 | 7 | 3 |
| 9578 | | SVTO | 08 | 15 | 0600 | S09 | W44 | 08 | 11.9 | | B | BXO | 30 | 5 | 5 | 3 |
| 9578 | | RAMY | 08 | 15 | 1300 | S08 | W48 | 08 | 11.9 | | B | CSO | 10 | 3 | 5 | 3 |
| 9578 | | TACH | 08 | 16 | 0529 | S09 | W58 | 08 | 11.9 | | | CAO | 115 | 2 | 10 | 4 |
| 9578 | | SVTO | 08 | 16 | 0622 | S10 | W59 | 08 | 11.8 | | B | CSO | 40 | 4 | 10 | 2 |
| 9578 | | RAMY | 08 | 16 | 1222 | S11 | W57 | 08 | 12.2 | | A | AXX | 10 | 1 | | 3 |
| 9571 | | HOLL | 08 | 06 | 1415 | N01 | E83 | 08 | 12.8 | | A | HAX | 60 | 1 | 3 | 3 |
| 9571 | 30630 | MWIL | 08 | 06 | 1445 | N07 | E84 | 08 | 12.9 | 4 | AP | | | | | |
| 9571 | | LEAR | 08 | 07 | 0145 | N04 | E77 | 08 | 12.8 | | A | HSX | 60 | 1 | 2 | 4 |
| 9571 | | VORO | 08 | 07 | 0257 | N07 | E75 | 08 | 12.7 | | | HAX | 67 | 1 | | 3 |
| 9571 | | SVTO | 08 | 07 | 0544 | N08 | E76 | 08 | 12.9 | | A | HAX | 60 | 1 | 1 | 3 |
| 9571 | | KAND | 08 | 07 | 0700 | N06 | E75 | 08 | 12.9 | | | HS | | 1 | 2 | 4 |
| 9571 | | RAMY | 08 | 07 | 1220 | N06 | E71 | 08 | 12.8 | | A | HSX | 50 | 1 | 1 | 3 |
| 9571 | 30630 | MWIL | 08 | 07 | 1430 | N07 | E69 | 08 | 12.8 | 4 | (AP) | | | | | |
| 9571 | | HOLL | 08 | 07 | 1645 | N07 | E70 | 08 | 12.9 | | A | HAX | 50 | 1 | 2 | 3 |
| 9571 | | LEAR | 08 | 08 | 0020 | N06 | E64 | 08 | 12.8 | | A | HAX | 50 | 1 | 2 | 2 |
| 9571 | | TACH | 08 | 08 | 0524 | N07 | E60 | 08 | 12.7 | | | HSX | 50 | 1 | 1 | 3 |
| 9571 | | SVTO | 08 | 08 | 0540 | N07 | E61 | 08 | 12.8 | | A | HAX | 50 | 1 | 2 | 3 |
| 9571 | | KAND | 08 | 08 | 0845 | N06 | E60 | 08 | 12.8 | | | HS | | 1 | 2 | 4 |
| 9571 | | RAMY | 08 | 08 | 1230 | N06 | E57 | 08 | 12.8 | | A | HSX | 90 | 1 | 1 | 3 |
| 9571 | 30630 | MWIL | 08 | 08 | 1430 | N08 | E56 | 08 | 12.8 | 5 | (AP) | | | | | |
| 9571 | | HOLL | 08 | 08 | 1550 | N06 | E57 | 08 | 12.9 | | A | HAX | 70 | 1 | 2 | 3 |
| 9571 | | VORO | 08 | 08 | 2123 | N07 | E52 | 08 | 12.8 | | | HAX | 59 | 1 | | 2 |
| 9571 | | LEAR | 08 | 09 | 0030 | N06 | E51 | 08 | 12.8 | | A | HSX | 60 | 1 | 2 | 3 |
| 9571 | | TACH | 08 | 09 | 0509 | N07 | E47 | 08 | 12.7 | | | HSX | 50 | 1 | 1 | 2 |
| 9571 | | SVTO | 08 | 09 | 0545 | N06 | E48 | 08 | 12.8 | | A | HSX | 60 | 1 | 2 | 3 |
| 9571 | | KAND | 08 | 09 | 1010 | N06 | E44 | 08 | 12.7 | | | HS | | 1 | 1 | 5 |
| 9571 | | RAMY | 08 | 09 | 1145 | N07 | E45 | 08 | 12.9 | | A | HSX | 50 | 1 | 2 | 2 |
| 9571 | 30630 | MWIL | 08 | 09 | 1445 | N07 | E43 | 08 | 12.8 | 5 | (AP) | | | | | |
| 9571 | | VORO | 08 | 09 | 2120 | N07 | E39 | 08 | 12.8 | | | HSX | 87 | 1 | | 2 |
| 9571 | | LEAR | 08 | 10 | 0155 | N06 | E37 | 08 | 12.8 | | A | HSX | 50 | 1 | 2 | 2 |
| 9571 | | TACH | 08 | 10 | 0400 | N08 | E35 | 08 | 12.8 | | | HSX | 60 | 1 | 1 | 3 |
| 9571 | | KAND | 08 | 10 | 0720 | N07 | E33 | 08 | 12.8 | | | HS | | 1 | 2 | 3 |
| 9571 | | SVTO | 08 | 10 | 0800 | N07 | E33 | 08 | 12.8 | | A | HSX | 40 | 1 | 1 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9571 | 30630 | MWIL | 08 | 10 | 1430 | N07 | E30 | 08 | 12.8 | 5 | (AP) | | | | | |
| 9571 | | VORO | 08 | 10 | 2122 | N07 | E26 | 08 | 12.8 | | | HSX | 75 | 1 | | 2 |
| 9571 | | LEAR | 08 | 11 | 0345 | N06 | E22 | 08 | 12.8 | | A | HSX | 40 | 1 | 1 | 3 |
| 9571 | | SVTO | 08 | 11 | 0513 | N07 | E22 | 08 | 12.9 | | A | HSX | 40 | 1 | 2 | 3 |
| 9571 | | KAND | 08 | 11 | 0750 | N08 | E21 | 08 | 12.9 | | | HS | | 1 | 2 | 2 |
| 9571 | | RAMY | 08 | 11 | 1135 | N08 | E18 | 08 | 12.8 | | A | HSX | 30 | 1 | 1 | 3 |
| 9571 | | HOLL | 08 | 11 | 1400 | N03 | E14 | 08 | 12.6 | | A | HSX | 60 | 2 | 2 | 4 |
| 9571 | 30630 | MWIL | 08 | 11 | 1430 | N07 | E16 | 08 | 12.8 | 5 | (AP) | | | | | |
| 9571 | | VORO | 08 | 11 | 2130 | N07 | E12 | 08 | 12.8 | | | HAX | 70 | 1 | | 3 |
| 9571 | | LEAR | 08 | 12 | 0050 | N06 | E11 | 08 | 12.8 | | A | HSX | 60 | 2 | 2 | 3 |
| 9571 | | SVTO | 08 | 12 | 0540 | N07 | E07 | 08 | 12.8 | | A | HAX | 60 | 1 | 2 | 3 |
| 9571 | | KAND | 08 | 12 | 0935 | N07 | E06 | 08 | 12.8 | | | HS | | 1 | 2 | 3 |
| 9571 | 30630 | MWIL | 08 | 12 | 1445 | N08 | E03 | 08 | 12.8 | 5 | (AP) | | | | | |
| 9571 | | VORO | 08 | 12 | 2154 | N08 | W02 | 08 | 12.8 | | | HAX | 35 | 1 | | 3 |
| 9571 | | LEAR | 08 | 13 | 0057 | N07 | W04 | 08 | 12.7 | | A | HSX | 50 | 2 | 2 | 1 |
| 9571 | | SVTO | 08 | 13 | 0545 | N06 | W05 | 08 | 12.9 | | A | HSX | 50 | 2 | 2 | 2 |
| 9571 | | TACH | 08 | 13 | 0547 | N08 | W06 | 08 | 12.8 | | | HSX | 50 | 1 | 1 | 3 |
| 9571 | | RAMY | 08 | 13 | 1251 | N06 | W10 | 08 | 12.8 | | A | HSX | 50 | 1 | 1 | 2 |
| 9571 | | HOLL | 08 | 13 | 1400 | N07 | W11 | 08 | 12.7 | | A | HSX | 20 | 2 | 2 | 3 |
| 9571 | 30630 | MWIL | 08 | 13 | 1445 | N08 | W11 | 08 | 12.8 | 5 | (AP) | | | | | |
| 9571 | | VORO | 08 | 13 | 2338 | N07 | W16 | 08 | 12.8 | | | HAX | 33 | 1 | | 3 |
| 9571 | | LEAR | 08 | 14 | 0030 | N08 | W17 | 08 | 12.7 | | A | HSX | 40 | 1 | 1 | 4 |
| 9571 | | SVTO | 08 | 14 | 0515 | N07 | W19 | 08 | 12.8 | | B | CSO | 40 | 2 | 1 | 3 |
| 9571 | | KAND | 08 | 14 | 1015 | N07 | W22 | 08 | 12.8 | | | HS | | 1 | 2 | 4 |
| 9571 | | RAMY | 08 | 14 | 1325 | N07 | W24 | 08 | 12.8 | | A | HSX | 20 | 1 | 1 | 3 |
| 9571 | 30630 | MWIL | 08 | 14 | 1430 | N07 | W24 | 08 | 12.8 | 5 | (AP) | | | | | |
| 9571 | | HOLL | 08 | 14 | 1445 | N06 | W25 | 08 | 12.7 | | A | HSX | 40 | 1 | 2 | 3 |
| 9571 | | VORO | 08 | 14 | 2235 | N07 | W29 | 08 | 12.8 | | | AXX | 18 | 1 | | 3 |
| 9571 | | SVTO | 08 | 15 | 0600 | N07 | W34 | 08 | 12.7 | | A | HAX | 20 | 1 | 2 | 3 |
| 9571 | | KAND | 08 | 15 | 0730 | N07 | W33 | 08 | 12.8 | | | HA | | 1 | 1 | 4 |
| 9571 | | RAMY | 08 | 15 | 1300 | N06 | W37 | 08 | 12.8 | | A | HSX | 10 | 1 | 1 | 3 |
| 9571 | 30630 | MWIL | 08 | 15 | 1500 | N08 | W37 | 08 | 12.8 | 4 | (AP) | | | | | |
| 9571 | | VORO | 08 | 16 | 0335 | N07 | W45 | 08 | 12.8 | | | HAX | 34 | 1 | | 3 |
| 9571 | | TACH | 08 | 16 | 0529 | N08 | W46 | 08 | 12.8 | | | AXX | 20 | 1 | 1 | 4 |
| 9571 | | SVTO | 08 | 16 | 0622 | N06 | W47 | 08 | 12.7 | | A | HRX | 10 | 1 | 1 | 2 |
| 9571 | | KAND | 08 | 16 | 0835 | N07 | W47 | 08 | 12.8 | | | HA | | 1 | 1 | 5 |
| 9571 | | RAMY | 08 | 16 | 1222 | N06 | W50 | 08 | 12.8 | | A | HSX | 10 | 1 | | 3 |
| 9571 | 30630 | MWIL | 08 | 16 | 1430 | N07 | W50 | 08 | 12.8 | 4 | (AP) | | | | | |
| 9571 | | HOLL | 08 | 16 | 1448 | N07 | W52 | 08 | 12.7 | | A | AXX | 20 | 1 | 1 | 2 |
| 9571A | 30638 | MWIL | 08 | 09 | 1445 | S24 | E45 | 08 | 13.1 | 4 | (AP) | | | | | |
| 9571A | 30653 | MWIL | 08 | 16 | 1430 | S23 | W44 | 08 | 13.2 | 3 | (AP) | | | | | |
| 9571B | 30645 | MWIL | 08 | 13 | 1445 | N08 | E04 | 08 | 13.9 | 4 | (AP) | | | | | |
| 9586 | 30640 | MWIL | 08 | 10 | 1430 | S19 | E46 | 08 | 14.1 | 4 | (AP) | | | | | |
| 9586 | 30644 | MWIL | 08 | 13 | 1445 | S16 | E06 | 08 | 14.1 | 4 | (B ) | | | | | |
| 9586 | | KAND | 08 | 14 | 1015 | S17 | W03 | 08 | 14.2 | | | CRO | | 4 | 5 | 4 |
| 9586 | 30644 | MWIL | 08 | 14 | 1430 | S16 | W06 | 08 | 14.1 | 4 | (B ) | | | | | |
| 9586 | | KAND | 08 | 15 | 0730 | S17 | W12 | 08 | 14.4 | | | AX | | 3 | 2 | 4 |
| 9586 | 30644 | MWIL | 08 | 15 | 1500 | S15 | W18 | 08 | 14.3 | 4 | (B ) | | | | | |
| 9586 | | TACH | 08 | 16 | 0529 | S15 | W28 | 08 | 14.1 | | | BRO | 4 | 2 | 5 | 4 |
| 9586 | | KAND | 08 | 16 | 0835 | S16 | W29 | 08 | 14.1 | | | BXO | | 3 | 5 | 5 |
| 9586 | 30644 | MWIL | 08 | 16 | 1430 | S15 | W30 | 08 | 14.3 | 3 | (B ) | | | | | |
| 9586 | | LEAR | 08 | 17 | 0200 | S15 | W36 | 08 | 14.3 | | B | BXO | 10 | 2 | 1 | 4 |
| 9586 | | TACH | 08 | 17 | 0512 | S16 | W36 | 08 | 14.5 | | | BRO | 7 | 2 | 1 | 4 |
| 9586 | | SVTO | 08 | 17 | 0638 | S17 | W37 | 08 | 14.5 | | B | CRO | 30 | 3 | 3 | 3 |
| 9586 | | KAND | 08 | 17 | 0910 | S16 | W39 | 08 | 14.4 | | | BXO | | 2 | 1 | 3 |
| 9586 | | HOLL | 08 | 17 | 1404 | S13 | W42 | 08 | 14.4 | | B | BXO | 20 | 2 | 2 | 4 |
| 9586 | 30644 | MWIL | 08 | 17 | 1500 | S16 | W43 | 08 | 14.4 | 4 | (B ) | | | | | |
| 9586 | | LEAR | 08 | 18 | 0320 | S16 | W51 | 08 | 14.3 | | B | BXO | 20 | 5 | 4 | 4 |
| 9586 | | SVTO | 08 | 18 | 0800 | S17 | W54 | 08 | 14.2 | | B | CRO | 30 | 5 | 8 | 3 |
| 9586 | 30644 | MWIL | 08 | 18 | 1500 | S14 | W58 | 08 | 14.2 | 4 | (B ) | | | | | |
| 9579 | | HOLL | 08 | 13 | 1400 | S18 | E07 | 08 | 14.1 | | A | AXX | 20 | 4 | 2 | 3 |
| 9579 | | VORO | 08 | 13 | 2338 | S17 | E02 | 08 | 14.1 | | | BXO | 12 | 2 | 2 | 3 |
| 9579 | | LEAR | 08 | 14 | 0030 | S17 | E03 | 08 | 14.2 | | B | BXO | 20 | 7 | 6 | 4 |
| 9579 | | SVTO | 08 | 14 | 0515 | S17 | E01 | 08 | 14.3 | | B | DSO | 50 | 7 | 7 | 3 |
| 9579 | | RAMY | 08 | 14 | 1325 | S17 | W07 | 08 | 14.0 | | B | CSO | 10 | 3 | 5 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9579 | | HOLL | 08 | 14 | 1445 | S17 | W06 | 08 | 14.1 | | B | CAO | 20 | 5 | 7 | 3 |
| 9579 | | VORO | 08 | 14 | 2235 | S18 | W08 | 08 | 14.3 | | | BXO | 28 | 3 | 2 | 3 |
| 9579 | | SVTO | 08 | 15 | 0600 | S19 | W13 | 08 | 14.2 | | B | DSO | 50 | 8 | 9 | 3 |
| 9579 | | KAND | 08 | 15 | 0730 | S21 | W14 | 08 | 14.2 | | | CRO | | 2 | 1 | 4 |
| 9579 | | RAMY | 08 | 15 | 1300 | S20 | W16 | 08 | 14.3 | | B | DSO | 40 | 8 | 8 | 3 |
| 9579 | 30648 | MWIL | 08 | 15 | 1500 | S20 | W19 | 08 | 14.2 | 4 | (B ) | | | | | |
| 9579 | | VORO | 08 | 16 | 0335 | S23 | W26 | 08 | 14.1 | | | HAX | 23 | 1 | | 3 |
| 9579 | | TACH | 08 | 16 | 0529 | S22 | W26 | 08 | 14.2 | | | AR | 26 | 2 | 1 | 4 |
| 9579 | | SVTO | 08 | 16 | 0622 | S20 | W28 | 08 | 14.1 | | B | CSO | 60 | 5 | 9 | 2 |
| 9579 | | KAND | 08 | 16 | 0835 | S22 | W28 | 08 | 14.2 | | | CSO | | 2 | 2 | 5 |
| 9579 | | RAMY | 08 | 16 | 1222 | S23 | W29 | 08 | 14.3 | | A | HSX | 30 | 1 | 1 | 3 |
| 9579 | 30648 | MWIL | 08 | 16 | 1430 | S22 | W31 | 08 | 14.2 | 4 | (BF) | | | | | |
| 9579 | | HOLL | 08 | 16 | 1448 | S21 | W31 | 08 | 14.2 | | A | HSX | 30 | 1 | 1 | 2 |
| 9579 | | VORO | 08 | 16 | 2240 | S23 | W36 | 08 | 14.2 | | | AXX | 28 | 4 | | 3 |
| 9579 | | LEAR | 08 | 17 | 0200 | S21 | W39 | 08 | 14.1 | | A | HSX | 10 | 1 | 1 | 4 |
| 9579 | | TACH | 08 | 17 | 0512 | S22 | W38 | 08 | 14.3 | | | AXX | 5 | 1 | 1 | 4 |
| 9579 | | SVTO | 08 | 17 | 0638 | S24 | W41 | 08 | 14.1 | | A | HSX | 20 | 1 | 1 | 3 |
| 9579 | | KAND | 08 | 17 | 0910 | S22 | W42 | 08 | 14.1 | | | HS | | 1 | 2 | 3 |
| 9579 | | RAMY | 08 | 17 | 1239 | S24 | W43 | 08 | 14.2 | | A | HSX | 10 | 1 | 1 | 2 |
| 9579 | | HOLL | 08 | 17 | 1404 | S22 | W44 | 08 | 14.2 | | A | HSX | 20 | 1 | 1 | 4 |
| 9579 | 30648 | MWIL | 08 | 17 | 1500 | S22 | W45 | 08 | 14.2 | 4 | (AF) | | | | | |
| 9579 | | LEAR | 08 | 18 | 0320 | S23 | W53 | 08 | 14.0 | | A | HRX | 20 | 1 | 1 | 4 |
| 9579 | | KAND | 08 | 18 | 0705 | S22 | W54 | 08 | 14.1 | | | AX | | 1 | | 3 |
| 9579 | | SVTO | 08 | 18 | 0800 | S24 | W54 | 08 | 14.2 | | A | HRX | 20 | 1 | 1 | 3 |
| 9579 | | RAMY | 08 | 18 | 1208 | S24 | W57 | 08 | 14.1 | | A | HSX | 10 | 1 | 1 | 2 |
| 9579 | 30648 | MWIL | 08 | 18 | 1500 | S22 | W57 | 08 | 14.2 | 4 | (AF) | | | | | |
| 9573 | | LEAR | 08 | 08 | 0020 | S09 | E81 | 08 | 14.1 | | A | HAX | 60 | 1 | 2 | 2 |
| 9573 | | TACH | 08 | 08 | 0524 | S08 | E77 | 08 | 14.0 | | | HSX | 45 | 1 | 1 | 3 |
| 9573 | | SVTO | 08 | 08 | 0540 | S07 | E79 | 08 | 14.1 | | A | HSX | 50 | 2 | 3 | 3 |
| 9573 | | KAND | 08 | 08 | 0845 | S09 | E82 | 08 | 14.5 | | | CAO | | 2 | 4 | 4 |
| 9573 | | RAMY | 08 | 08 | 1230 | S09 | E78 | 08 | 14.4 | | A | HAX | 30 | 1 | 2 | 3 |
| 9573 | 30636 | MWIL | 08 | 08 | 1430 | S07 | E75 | 08 | 14.2 | 4 | AP | | | | | |
| 9573 | | HOLL | 08 | 08 | 1550 | S08 | E75 | 08 | 14.3 | | A | HAX | 60 | 2 | 3 | 3 |
| 9573 | | VORO | 08 | 08 | 2123 | S08 | E70 | 08 | 14.1 | | | HAX | 176 | 2 | | 2 |
| 9573 | | LEAR | 08 | 09 | 0030 | S09 | E69 | 08 | 14.2 | | A | HAX | 100 | 2 | 2 | 3 |
| 9573 | | TACH | 08 | 09 | 0509 | S08 | E67 | 08 | 14.2 | | | HSX | 100 | 1 | 2 | 2 |
| 9573 | | SVTO | 08 | 09 | 0545 | S09 | E68 | 08 | 14.3 | | B | DRO | 100 | 2 | 2 | 3 |
| 9573 | | KAND | 08 | 09 | 1010 | S10 | E65 | 08 | 14.3 | | | CSO | | 10 | 7 | 5 |
| 9573 | | RAMY | 08 | 09 | 1145 | S09 | E65 | 08 | 14.4 | | B | CSO | 150 | 2 | 6 | 2 |
| 9573 | 30636 | MWIL | 08 | 09 | 1445 | S09 | E62 | 08 | 14.3 | 4 | (B ) | | | | | |
| 9573 | | VORO | 08 | 09 | 2120 | S08 | E59 | 08 | 14.3 | | | CAI | 91 | 3 | 4 | 2 |
| 9573 | | LEAR | 08 | 10 | 0155 | S09 | E55 | 08 | 14.2 | | B | DSO | 70 | 7 | 1 | 2 |
| 9573 | | TACH | 08 | 10 | 0400 | S08 | E57 | 08 | 14.4 | | | CRI | 60 | 6 | 6 | 3 |
| 9573 | | KAND | 08 | 10 | 0720 | S09 | E56 | 08 | 14.5 | | | CAO | | 17 | 12 | 3 |
| 9573 | | SVTO | 08 | 10 | 0800 | S09 | E54 | 08 | 14.4 | | B | DAO | 180 | 8 | 7 | 3 |
| 9573 | 30636 | MWIL | 08 | 10 | 1430 | S09 | E50 | 08 | 14.3 | 5 | (B ) | | | | | |
| 9573 | | VORO | 08 | 10 | 2122 | S08 | E47 | 08 | 14.4 | | | DAI | 253 | 6 | 6 | 2 |
| 9573 | | LEAR | 08 | 11 | 0345 | S11 | E43 | 08 | 14.4 | | B | DAO | 210 | 10 | 8 | 3 |
| 9573 | | SVTO | 08 | 11 | 0513 | S09 | E44 | 08 | 14.5 | | B | DAO | 150 | 7 | 7 | 3 |
| 9573 | | KAND | 08 | 11 | 0750 | S09 | E41 | 08 | 14.4 | | | DSO | | 7 | 7 | 2 |
| 9573 | | RAMY | 08 | 11 | 1135 | S09 | E39 | 08 | 14.4 | | B | DSO | 110 | 10 | 7 | 3 |
| 9573 | | HOLL | 08 | 11 | 1400 | S08 | E37 | 08 | 14.3 | | B | DAI | 100 | 31 | 7 | 4 |
| 9573 | 30636 | MWIL | 08 | 11 | 1430 | S09 | E38 | 08 | 14.4 | 4 | (B ) | | | | | |
| 9573 | | VORO | 08 | 11 | 2130 | S09 | E34 | 08 | 14.4 | | | DAI | 215 | 14 | 7 | 3 |
| 9573 | | LEAR | 08 | 12 | 0050 | S10 | E32 | 08 | 14.4 | | B | DAI | 150 | 24 | 8 | 3 |
| 9573 | | SVTO | 08 | 12 | 0540 | S09 | E30 | 08 | 14.5 | | B | DAO | 200 | 8 | 9 | 3 |
| 9573 | | KAND | 08 | 12 | 0935 | S09 | E27 | 08 | 14.4 | | | DAO | | 15 | 9 | 3 |
| 9573 | 30636 | MWIL | 08 | 12 | 1445 | S08 | E25 | 08 | 14.5 | 4 | (B ) | | | | | |
| 9573 | | VORO | 08 | 12 | 2154 | S08 | E21 | 08 | 14.5 | | | DAI | 148 | 9 | 5 | 3 |
| 9573 | | LEAR | 08 | 13 | 0057 | S09 | E18 | 08 | 14.4 | | B | DAI | 120 | 16 | 9 | 1 |
| 9573 | | SVTO | 08 | 13 | 0545 | S09 | E17 | 08 | 14.5 | | B | EAO | 130 | 30 | 11 | 2 |
| 9573 | | TACH | 08 | 13 | 0547 | S08 | E16 | 08 | 14.4 | | | CAO | 97 | 7 | 5 | 3 |
| 9573 | | RAMY | 08 | 13 | 1251 | S08 | E13 | 08 | 14.5 | | B | DSO | 100 | 8 | 7 | 2 |
| 9573 | | HOLL | 08 | 13 | 1400 | S11 | E11 | 08 | 14.4 | | B | DAO | 90 | 21 | 9 | 3 |
| 9573 | 30636 | MWIL | 08 | 13 | 1445 | S08 | E12 | 08 | 14.5 | 5 | (B ) | | | | | |
| 9573 | | VORO | 08 | 13 | 2338 | S08 | E07 | 08 | 14.5 | | | DAI | 53 | 7 | 5 | 3 |
| 9573 | | LEAR | 08 | 14 | 0030 | S07 | E06 | 08 | 14.5 | | B | CAO | 90 | 13 | 7 | 4 |
| 9573 | | SVTO | 08 | 14 | 0515 | S08 | E03 | 08 | 14.4 | | B | DSO | 110 | 18 | 9 | 3 |

# S U N S P O T  G R O U P S
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Time Mo | Day | (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9573 | | KAND | 08 | 14 | 1015 | S10 | E00 | 08 | 14.4 | | | CSO | | 8 | 7 | 4 |
| 9573 | | RAMY | 08 | 14 | 1325 | S07 | W04 | 08 | 14.2 | | B | DSO | 30 | 8 | 9 | 3 |
| 9573 | 30636 | MWIL | 08 | 14 | 1430 | S08 | W01 | 08 | 14.5 | 4 | (BP) | | | | | |
| 9573 | | HOLL | 08 | 14 | 1445 | S09 | W05 | 08 | 14.2 | | B | CSO | 40 | 8 | 7 | 3 |
| 9573 | | VORO | 08 | 14 | 2235 | S08 | W08 | 08 | 14.3 | | | HAX | 59 | 1 | | 3 |
| 9573 | | SVTO | 08 | 15 | 0600 | S08 | W14 | 08 | 14.2 | | B | DAO | 50 | 7 | 7 | 3 |
| 9573 | | KAND | 08 | 15 | 0730 | S07 | W14 | 08 | 14.3 | | | CSO | | 3 | 5 | 4 |
| 9573 | | RAMY | 08 | 15 | 1300 | S09 | W17 | 08 | 14.3 | | B | CSO | 20 | 2 | 2 | 3 |
| 9573 | 30636 | MWIL | 08 | 15 | 1500 | S07 | W16 | 08 | 14.4 | 4 | (BP) | | | | | |
| 9573 | | VORO | 08 | 16 | 0335 | S09 | W25 | 08 | 14.3 | | | HAX | 36 | 1 | | 3 |
| 9573 | | TACH | 08 | 16 | 0529 | S08 | W25 | 08 | 14.3 | | | HSX | 55 | 1 | 1 | 4 |
| 9573 | | SVTO | 08 | 16 | 0622 | S09 | W26 | 08 | 14.3 | | A | HSX | 30 | 1 | 1 | 2 |
| 9573 | | KAND | 08 | 16 | 0835 | S08 | W25 | 08 | 14.5 | | | CAO | | 2 | 4 | 5 |
| 9573 | | RAMY | 08 | 16 | 1222 | S08 | W29 | 08 | 14.3 | | A | HSX | 20 | 1 | 1 | 3 |
| 9573 | 30636 | MWIL | 08 | 16 | 1430 | S08 | W30 | 08 | 14.3 | 5 | (BP) | | | | | |
| 9573 | | HOLL | 08 | 16 | 1448 | S09 | W31 | 08 | 14.3 | | A | HSX | 40 | 2 | 2 | 2 |
| 9573 | | VORO | 08 | 16 | 2240 | S09 | W35 | 08 | 14.3 | | | HAX | 36 | 1 | | 3 |
| 9573 | | LEAR | 08 | 17 | 0200 | S07 | W38 | 08 | 14.2 | | B | CSO | 30 | 2 | 1 | 4 |
| 9573 | | TACH | 08 | 17 | 0512 | S07 | W38 | 08 | 14.4 | | | AR | 30 | 1 | 1 | 4 |
| 9573 | | SVTO | 08 | 17 | 0638 | S08 | W40 | 08 | 14.3 | | A | HAX | 30 | 1 | 1 | 3 |
| 9573 | | KAND | 08 | 17 | 0910 | S08 | W41 | 08 | 14.3 | | | HS | | 1 | 1 | 3 |
| 9573 | | RAMY | 08 | 17 | 1239 | S09 | W42 | 08 | 14.4 | | A | HSX | 30 | 1 | 1 | 2 |
| 9573 | | HOLL | 08 | 17 | 1404 | S08 | W43 | 08 | 14.4 | | A | HSX | 30 | 1 | 1 | 4 |
| 9573 | 30636 | MWIL | 08 | 17 | 1500 | S08 | W44 | 08 | 14.3 | 4 | (AP) | | | | | |
| 9573 | | LEAR | 08 | 18 | 0320 | S08 | W51 | 08 | 14.3 | | A | HSX | 30 | 1 | 1 | 4 |
| 9573 | | TACH | 08 | 18 | 0552 | S07 | W51 | 08 | 14.4 | | | AXX | 3 | 1 | 1 | 3 |
| 9573 | | KAND | 08 | 18 | 0705 | S07 | W53 | 08 | 14.3 | | | HR | | 1 | 1 | 3 |
| 9573 | | SVTO | 08 | 18 | 0800 | S07 | W53 | 08 | 14.4 | | A | HAX | 30 | 1 | 1 | 3 |
| 9573 | | RAMY | 08 | 18 | 1208 | S10 | W56 | 08 | 14.3 | | A | HSX | 10 | 1 | 1 | 2 |
| 9573 | 30636 | MWIL | 08 | 18 | 1500 | S08 | W57 | 08 | 14.3 | 4 | (AP) | | | | | |
| 9573 | | LEAR | 08 | 19 | 0015 | S07 | W63 | 08 | 14.3 | | A | HAX | 50 | 1 | 2 | 4 |
| 9573 | | VORO | 08 | 19 | 0048 | S08 | W63 | 08 | 14.3 | | | HAX | 37 | 1 | | 3 |
| 9573 | | TACH | 08 | 19 | 0550 | S08 | W64 | 08 | 14.4 | | | AXX | 2 | 1 | 1 | 4 |
| 9573 | | SVTO | 08 | 19 | 0555 | S08 | W67 | 08 | 14.2 | | A | HSX | 50 | 1 | 1 | 3 |
| 9573 | | RAMY | 08 | 19 | 1410 | S10 | W70 | 08 | 14.3 | | A | HSX | 30 | 1 | 1 | 1 |
| 9573 | | HOLL | 08 | 19 | 1420 | S08 | W68 | 08 | 14.5 | | A | AXX | 20 | 1 | 1 | 4 |
| 9573 | 30636 | MWIL | 08 | 19 | 1800 | S08 | W75 | 08 | 14.1 | 3 | (AP) | | | | | |
| 9573 | | LEAR | 08 | 20 | 0040 | S07 | W75 | 08 | 14.4 | | A | HSX | 30 | 1 | 2 | 3 |
| 9573 | | SVTO | 08 | 20 | 0548 | S09 | W79 | 08 | 14.3 | | A | HAX | 30 | 1 | 3 | 3 |
| 9573A | 30639 | MWIL | 08 | 09 | 1445 | N16 | E69 | 08 | 14.8 | 4 | (AP) | | | | | |
| 9573A | | LEAR | 08 | 10 | 0155 | N16 | E62 | 08 | 14.8 | | A | AXX | | 1 | | 2 |
| 9573A | | SVTO | 08 | 10 | 0800 | N17 | E60 | 08 | 14.9 | | A | AXX | | 1 | | 3 |
| 9581 | | KAND | 08 | 09 | 1010 | S27 | E74 | 08 | 15.2 | | | AX | | 2 | 2 | 5 |
| 9581 | | SVTO | 08 | 15 | 0600 | S28 | E01 | 08 | 15.3 | | B | DAO | 20 | 5 | 4 | 3 |
| 9581 | | KAND | 08 | 15 | 0730 | S27 | E00 | 08 | 15.3 | | | BXO | | 4 | 5 | 4 |
| 9581 | | RAMY | 08 | 15 | 1300 | S27 | W05 | 08 | 15.1 | | A | HRX | 10 | 1 | 1 | 3 |
| 9581 | 30649 | MWIL | 08 | 15 | 1500 | S25 | W07 | 08 | 15.1 | 4 | (B ) | | | | | |
| 9581 | | VORO | 08 | 16 | 0335 | S26 | W14 | 08 | 15.1 | | | DSO | 71 | 2 | 4 | 3 |
| 9581 | | TACH | 08 | 16 | 0529 | S25 | W15 | 08 | 15.1 | | | BRO | 43 | 3 | 4 | 4 |
| 9581 | | SVTO | 08 | 16 | 0622 | S26 | W14 | 08 | 15.2 | | B | CAO | 60 | 3 | 6 | 2 |
| 9581 | | KAND | 08 | 16 | 0835 | S25 | W15 | 08 | 15.2 | | | CSO | | 3 | 5 | 5 |
| 9581 | | RAMY | 08 | 16 | 1222 | S26 | W17 | 08 | 15.2 | | B | CSO | 60 | 3 | 6 | 3 |
| 9581 | 30649 | MWIL | 08 | 16 | 1430 | S25 | W20 | 08 | 15.0 | 4 | (B ) | | | | | |
| 9581 | | HOLL | 08 | 16 | 1448 | S26 | W19 | 08 | 15.1 | | B | CSO | 30 | 3 | 7 | 2 |
| 9581 | | VORO | 08 | 16 | 2240 | S25 | W27 | 08 | 14.8 | | | HAX | 24 | 1 | | 3 |
| 9581 | | LEAR | 08 | 17 | 0200 | S23 | W31 | 08 | 14.7 | | B | BXO | 10 | 2 | 1 | 4 |
| 9581 | | TACH | 08 | 17 | 0512 | S24 | W30 | 08 | 14.9 | | | AXX | 6 | 2 | 1 | 4 |
| 9581 | | SVTO | 08 | 17 | 0638 | S26 | W33 | 08 | 14.7 | | B | CSO | 30 | 2 | 1 | 3 |
| 9581 | | KAND | 08 | 17 | 0910 | S24 | W33 | 08 | 14.8 | | | HS | | 2 | 1 | 3 |
| 9581 | | RAMY | 08 | 17 | 1239 | S25 | W35 | 08 | 14.8 | | A | HSX | 20 | 1 | 1 | 2 |
| 9581 | | HOLL | 08 | 17 | 1404 | S25 | W37 | 08 | 14.7 | | B | CSO | 20 | 5 | 3 | 4 |
| 9581 | 30649 | MWIL | 08 | 17 | 1500 | S24 | W37 | 08 | 14.8 | 5 | (BP) | | | | | |
| 9581 | | LEAR | 08 | 18 | 0320 | S26 | W39 | 08 | 15.1 | | B | DRO | 50 | 2 | 3 | 4 |
| 9581 | | TACH | 08 | 18 | 0552 | S24 | W40 | 08 | 15.1 | | | BRO | 13 | 2 | 2 | 3 |
| 9581 | | KAND | 08 | 18 | 0705 | S25 | W42 | 08 | 15.0 | | | BXO | | 3 | 4 | 3 |
| 9581 | | SVTO | 08 | 18 | 0800 | S26 | W43 | 08 | 15.0 | | B | DAO | 30 | 3 | 3 | 3 |
| 9581 | | RAMY | 08 | 18 | 1208 | S27 | W45 | 08 | 15.0 | | B | DSO | 40 | 4 | 6 | 2 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9581 | 30649 | MWIL | 08 | 18 | 1500 | S25 | W45 | 08 | 15.1 | 4 | (B ) | | | | | |
| 9581 | | LEAR | 08 | 19 | 0015 | S25 | W54 | 08 | 14.8 | | B | CAO | 70 | 5 | 6 | 4 |
| 9581 | | VORO | 08 | 19 | 0048 | S28 | W49 | 08 | 15.2 | | | HAX | 40 | 1 | | 3 |
| 9581 | | TACH | 08 | 19 | 0550 | S29 | W46 | 08 | 15.6 | | | BRO | 22 | 3 | 7 | 4 |
| 9581 | | SVTO | 08 | 19 | 0555 | S26 | W56 | 08 | 14.9 | | B | DAO | 90 | 5 | 9 | 3 |
| 9581 | | HOLL | 08 | 19 | 1420 | S26 | W58 | 08 | 15.1 | | A | AXX | 10 | 1 | 1 | 4 |
| 9581 | 30658 | MWIL | 08 | 19 | 1800 | S24 | W65 | 08 | 14.7 | 3 | (AP) | | | | | |
| 9581 | 30649 | MWIL | 08 | 19 | 1800 | S27 | W60 | 08 | 15.1 | 3 | (AF) | | | | | |
| 9581 | | LEAR | 08 | 20 | 0040 | S26 | W65 | 08 | 15.0 | | B | BXO | 10 | 3 | 8 | 3 |
| 9581 | | TACH | 08 | 20 | 0550 | S29 | W67 | 08 | 15.0 | | | CRO | 80 | 2 | 6 | 3 |
| 9588 | 30657 | MWIL | 08 | 18 | 1500 | S32 | W38 | 08 | 15.6 | 4 | (B ) | | | | | |
| 9588 | | VORO | 08 | 19 | 0048 | S32 | W43 | 08 | 15.6 | | | DSO | 133 | 2 | 4 | 3 |
| 9588 | | SVTO | 08 | 19 | 0555 | S32 | W47 | 08 | 15.5 | | B | DAO | 100 | 6 | 6 | 3 |
| 9588 | | RAMY | 08 | 19 | 1410 | S33 | W50 | 08 | 15.6 | | B | DSO | 120 | 2 | 6 | 1 |
| 9588 | | HOLL | 08 | 19 | 1420 | S32 | W49 | 08 | 15.7 | | B | CAO | 60 | 4 | 8 | 4 |
| 9588 | 30657 | MWIL | 08 | 19 | 1800 | S32 | W54 | 08 | 15.5 | 5 | (B ) | | | | | |
| 9588 | | LEAR | 08 | 20 | 0040 | S31 | W57 | 08 | 15.5 | | B | CAO | 70 | 7 | 7 | 3 |
| 9588 | | VORO | 08 | 20 | 0406 | S34 | W61 | 08 | 15.3 | | | CAO | 151 | 2 | 8 | 2 |
| 9588 | | SVTO | 08 | 20 | 0548 | S32 | W61 | 08 | 15.4 | | B | DAO | 100 | 2 | 10 | 3 |
| 9588 | | RAMY | 08 | 20 | 1208 | S33 | W65 | 08 | 15.3 | | B | DSO | 90 | 2 | 10 | 2 |
| 9588 | | HOLL | 08 | 20 | 1438 | S33 | W65 | 08 | 15.4 | | B | DAO | 110 | 5 | 10 | 3 |
| 9588 | 30657 | MWIL | 08 | 20 | 1500 | S31 | W65 | 08 | 15.5 | 4 | (BF) | | | | | |
| 9588 | | LEAR | 08 | 21 | 0030 | S31 | W65 | 08 | 15.9 | | A | HAX | 30 | 1 | 2 | 2 |
| 9588 | | SVTO | 08 | 21 | 0614 | S32 | W73 | 08 | 15.5 | | B | BXO | 30 | 2 | 8 | 3 |
| 9588 | | KAND | 08 | 21 | 0805 | S31 | W72 | 08 | 15.6 | | | AX | | 1 | | 3 |
| 9588A | | LEAR | 08 | 19 | 0015 | N30 | W33 | 08 | 16.4 | | B | CAO | 40 | 3 | 4 | 4 |
| 9588A | | TACH | 08 | 21 | 0604 | N31 | W65 | 08 | 16.1 | | | AXX | 10 | 1 | 1 | 3 |
| 9575 | | SVTO | 08 | 11 | 0513 | N11 | E86 | 08 | 17.7 | | A | HSX | 60 | 1 | 2 | 3 |
| 9575 | | KAND | 08 | 11 | 0750 | N10 | E85 | 08 | 17.7 | | | HS | - | 1 | 2 | 2 |
| 9575 | | RAMY | 08 | 11 | 1135 | N12 | E79 | 08 | 17.4 | | A | HSX | 90 | 1 | 2 | 3 |
| 9575 | | HOLL | 08 | 11 | 1400 | N12 | E78 | 08 | 17.4 | | A | HSX | 120 | 1 | 2 | 4 |
| 9575 | 30641 | MWIL | 08 | 11 | 1430 | N11 | E78 | 08 | 17.5 | 4 | (BP) | | | | | |
| 9575 | | VORO | 08 | 11 | 2130 | N11 | E70 | 08 | 17.2 | | | HAX | 166 | 2 | | 3 |
| 9575 | | LEAR | 08 | 12 | 0050 | N10 | E75 | 08 | 17.7 | | B | CAO | 110 | 8 | 10 | 3 |
| 9575 | | SVTO | 08 | 12 | 0540 | N12 | E69 | 08 | 17.4 | | A | HSX | 140 | 1 | 3 | 3 |
| 9575 | | KAND | 08 | 12 | 0935 | N11 | E69 | 08 | 17.6 | | | HS | | 1 | 2 | 3 |
| 9575 | 30641 | MWIL | 08 | 12 | 1445 | N11 | E64 | 08 | 17.4 | 5 | (BP) | | | | | |
| 9575 | | VORO | 08 | 12 | 2154 | N11 | E60 | 08 | 17.4 | | | HAX | 102 | 1 | | 3 |
| 9575 | | LEAR | 08 | 13 | 0057 | N11 | E61 | 08 | 17.6 | | B | CSO | 150 | 5 | 10 | 1 |
| 9575 | | SVTO | 08 | 13 | 0545 | N12 | E55 | 08 | 17.4 | | B | CSO | 140 | 3 | 2 | 2 |
| 9575 | | TACH | 08 | 13 | 0547 | N11 | E55 | 08 | 17.4 | | | HSX | 100 | 1 | 2 | 3 |
| 9575 | | RAMY | 08 | 13 | 1251 | N12 | E52 | 08 | 17.4 | | A | HSX | 210 | 1 | 3 | 2 |
| 9575 | | HOLL | 08 | 13 | 1400 | N09 | E52 | 08 | 17.5 | | B | CAO | 90 | 6 | 9 | 3 |
| 9575 | 30641 | MWIL | 08 | 13 | 1445 | N11 | E50 | 08 | 17.4 | 5 | (BP) | | | | | |
| 9575 | | VORO | 08 | 13 | 2338 | N11 | E47 | 08 | 17.5 | | | HHX | 184 | 1 | | 3 |
| 9575 | | LEAR | 08 | 14 | 0030 | N11 | E45 | 08 | 17.4 | | B | CSO | 140 | 2 | 4 | 4 |
| 9575 | | SVTO | 08 | 14 | 0515 | N12 | E45 | 08 | 17.6 | | B | CSO | 180 | 8 | 9 | 3 |
| 9575 | | KAND | 08 | 14 | 1015 | N11 | E41 | 08 | 17.5 | | | CSO | | 3 | 3 | 4 |
| 9575 | | RAMY | 08 | 14 | 1325 | N12 | E38 | 08 | 17.4 | | A | HSX | 100 | 1 | 2 | 3 |
| 9575 | 30641 | MWIL | 08 | 14 | 1430 | N11 | E37 | 08 | 17.4 | 5 | (BP) | | | | | |
| 9575 | | HOLL | 08 | 14 | 1445 | N10 | E38 | 08 | 17.5 | | A | HAX | 120 | 1 | 3 | 3 |
| 9575 | | VORO | 08 | 14 | 2235 | N12 | E34 | 08 | 17.5 | | | HHX | 147 | 1 | | 3 |
| 9575 | | SVTO | 08 | 15 | 0600 | N12 | E29 | 08 | 17.4 | | A | HAX | 110 | 1 | 3 | 3 |
| 9575 | | KAND | 08 | 15 | 0730 | N12 | E29 | 08 | 17.5 | | | HA | | 1 | 2 | 4 |
| 9575 | | RAMY | 08 | 15 | 1300 | N12 | E26 | 08 | 17.5 | | A | HSX | 140 | 1 | 2 | 3 |
| 9575 | 30641 | MWIL | 08 | 15 | 1500 | N12 | E25 | 08 | 17.5 | 5 | (AP) | | | | | |
| 9575 | | VORO | 08 | 16 | 0335 | N12 | E18 | 08 | 17.5 | | | HHX | 100 | 1 | | 3 |
| 9575 | | TACH | 08 | 16 | 0529 | N12 | E16 | 08 | 17.4 | | | HSX | 201 | 2 | 2 | 4 |
| 9575 | | SVTO | 08 | 16 | 0622 | N12 | E17 | 08 | 17.5 | | B | CAO | 140 | 6 | 7 | 2 |
| 9575 | | KAND | 08 | 16 | 0835 | N12 | E19 | 08 | 17.8 | | | CAO | | 8 | 10 | 5 |
| 9575 | | RAMY | 08 | 16 | 1222 | N12 | E13 | 08 | 17.5 | | B | CAO | 130 | 3 | 3 | 3 |
| 9575 | 30641 | MWIL | 08 | 16 | 1430 | N12 | E13 | 08 | 17.6 | 5 | (BP) | | | | | |
| 9575 | | HOLL | 08 | 16 | 1448 | N11 | E13 | 08 | 17.6 | | B | CSO | 110 | 2 | 5 | 2 |
| 9575 | | VORO | 08 | 16 | 2240 | N11 | E08 | 08 | 17.5 | | | HHX | 121 | 1 | | 3 |
| 9575 | | LEAR | 08 | 17 | 0200 | N11 | E11 | 08 | 17.9 | | B | CSO | 110 | 3 | 2 | 4 |
| 9575 | | TACH | 08 | 17 | 0512 | N12 | E07 | 08 | 17.7 | | | CAO | 307 | 3 | 7 | 4 |

# S U N S P O T  G R O U P S
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9575 | | SVTO | 08 | 17 | 0638 | N12 | E06 | 08 | 17.7 | | B | CAO | 100 | 4 | 9 | 3 |
| 9575 | | KAND | 08 | 17 | 0910 | N11 | E05 | 08 | 17.7 | | | CSO | | 3 | 8 | 3 |
| 9575 | | RAMY | 08 | 17 | 1239 | N11 | E04 | 08 | 17.8 | | B | DSO | 90 | 3 | 7 | 2 |
| 9575 | | HOLL | 08 | 17 | 1404 | N11 | E04 | 08 | 17.9 | | B | CSO | 110 | 2 | 8 | 4 |
| 9575 | 30641 | MWIL | 08 | 17 | 1500 | N11 | W00 | 08 | 17.6 | 5 | (BP) | | | | | |
| 9575 | | LEAR | 08 | 18 | 0320 | N11 | W07 | 08 | 17.6 | | B | CSO | 150 | 2 | 5 | 4 |
| 9575 | | TACH | 08 | 18 | 0552 | N11 | W10 | 08 | 17.5 | | | HHX | 400 | 1 | 2 | 3 |
| 9575 | | KAND | 08 | 18 | 0705 | N12 | W08 | 08 | 17.7 | | | CAO | | 4 | 8 | 3 |
| 9575 | | SVTO | 08 | 18 | 0800 | N12 | W07 | 08 | 17.8 | | B | CSO | 150 | 6 | 9 | 3 |
| 9575 | | RAMY | 08 | 18 | 1208 | N11 | W11 | 08 | 17.7 | | B | DSO | 130 | 4 | 8 | 2 |
| 9575 | 30641 | MWIL | 08 | 18 | 1500 | N11 | W13 | 08 | 17.6 | 5 | (BP) | | | | | |
| 9575 | | LEAR | 08 | 19 | 0015 | N11 | W19 | 08 | 17.6 | | A | HSX | 150 | 2 | 2 | 4 |
| 9575 | | VORO | 08 | 19 | 0048 | N11 | W20 | 08 | 17.5 | | | HHX | 187 | 1 | | 3 |
| 9575 | | TACH | 08 | 19 | 0550 | N11 | W22 | 08 | 17.6 | | | HSX | 150 | 1 | 1 | 4 |
| 9575 | | SVTO | 08 | 19 | 0555 | N10 | W23 | 08 | 17.5 | | B | CSO | 120 | 3 | 3 | 3 |
| 9575 | | RAMY | 08 | 19 | 1410 | N10 | W28 | 08 | 17.5 | | A | HSX | 130 | 1 | 2 | 1 |
| 9575 | | HOLL | 08 | 19 | 1420 | N11 | W26 | 08 | 17.6 | | B | CSO | 70 | 3 | 4 | 4 |
| 9575 | 30641 | MWIL | 08 | 19 | 1800 | N11 | W30 | 08 | 17.5 | 5 | (AP) | | | | | |
| 9575 | | LEAR | 08 | 20 | 0040 | N11 | W33 | 08 | 17.5 | | A | HSX | 120 | 1 | 2 | 3 |
| 9575 | | VORO | 08 | 20 | 0406 | N10 | W35 | 08 | 17.5 | | | HSX | 161 | 1 | | 2 |
| 9575 | | SVTO | 08 | 20 | 0548 | N10 | W37 | 08 | 17.5 | | A | HSX | 120 | 1 | 3 | 3 |
| 9575 | | TACH | 08 | 20 | 0550 | N11 | W36 | 08 | 17.5 | | | HSX | 200 | 1 | 1 | 3 |
| 9575 | | RAMY | 08 | 20 | 1208 | N09 | W40 | 08 | 17.5 | | A | HSX | 80 | 1 | 2 | 2 |
| 9575 | | HOLL | 08 | 20 | 1438 | N11 | W42 | 08 | 17.4 | | A | HSX | 120 | 1 | 2 | 3 |
| 9575 | 30641 | MWIL | 08 | 20 | 1500 | N11 | W41 | 08 | 17.5 | 5 | (AP) | | | | | |
| 9575 | | LEAR | 08 | 21 | 0030 | N11 | W46 | 08 | 17.6 | | A | HSX | 120 | 1 | 2 | 2 |
| 9575 | | TACH | 08 | 21 | 0604 | N11 | W48 | 08 | 17.6 | | | HSX | 200 | 1 | 1 | 3 |
| 9575 | | SVTO | 08 | 21 | 0614 | N10 | W50 | 08 | 17.5 | | A | HSX | 110 | 1 | 3 | 3 |
| 9575 | | KAND | 08 | 21 | 0805 | N11 | W51 | 08 | 17.5 | | | HS | | 1 | 2 | 3 |
| 9575 | | RAMY | 08 | 21 | 1206 | N07 | W53 | 08 | 17.5 | | A | HSX | 140 | 1 | 3 | 2 |
| 9575 | 30641 | MWIL | 08 | 21 | 1500 | N11 | W55 | 08 | 17.5 | 5 | (AP) | | | | | |
| 9575 | | VORO | 08 | 21 | 2331 | N11 | W60 | 08 | 17.5 | | | HSX | 63 | 1 | | 3 |
| 9575 | | LEAR | 08 | 22 | 0020 | N11 | W60 | 08 | 17.5 | | A | HSX | 140 | 1 | 2 | 5 |
| 9575 | | TACH | 08 | 22 | 0532 | N10 | W60 | 08 | 17.7 | | | HSX | 160 | 1 | 2 | 3 |
| 9575 | | SVTO | 08 | 22 | 0623 | N09 | W65 | 08 | 17.4 | | A | HAX | 120 | 1 | 2 | 2 |
| 9575 | | KAND | 08 | 22 | 0720 | N12 | W64 | 08 | 17.5 | | | HS | | 1 | 2 | 4 |
| 9575 | | RAMY | 08 | 22 | 1140 | N07 | W66 | 08 | 17.5 | | A | HSX | 90 | 1 | 2 | 2 |
| 9575 | | HOLL | 08 | 22 | 1428 | N09 | W68 | 08 | 17.5 | | A | HAX | 140 | 1 | 2 | 3 |
| 9575 | 30641 | MWIL | 08 | 22 | 1500 | N11 | W67 | 08 | 17.6 | 5 | (AP) | | | | | |
| 9575 | | VORO | 08 | 22 | 2233 | N11 | W75 | 08 | 17.3 | | | HSX | 166 | 1 | | 1 |
| 9575 | | LEAR | 08 | 23 | 0015 | N12 | W74 | 08 | 17.4 | | A | HAX | 60 | 1 | 2 | 2 |
| 9575 | | TACH | 08 | 23 | 0543 | N11 | W75 | 08 | 17.6 | | | HSX | 140 | 1 | 4 | 3 |
| 9575 | | SVTO | 08 | 23 | 0610 | N09 | W79 | 08 | 17.3 | | A | HSX | 120 | 1 | 2 | 2 |
| 9575 | | KAND | 08 | 23 | 0710 | N12 | W77 | 08 | 17.5 | | | HS | | 1 | 2 | 3 |
| 9575 | | HOLL | 08 | 23 | 1430 | N11 | W80 | 08 | 17.6 | | A | HSX | 120 | 1 | 2 | 4 |
| 9575 | 30641 | MWIL | 08 | 23 | 1500 | N11 | W80 | 08 | 17.6 | 5 | AP | | | | | |
| 9575 | | RAMY | 08 | 23 | 1622 | N09 | W81 | 08 | 17.6 | | A | HSX | 50 | 1 | 2 | 2 |
| 9575A | 30650 | MWIL | 08 | 15 | 1500 | S22 | E33 | 08 | 18.2 | 4 | (B ) | | | | | |
| 9575A | | TACH | 08 | 16 | 0529 | S23 | E21 | 08 | 17.8 | | | BRO | 16 | 3 | 3 | 4 |
| 9575A | | SVTO | 08 | 16 | 0622 | S24 | E23 | 08 | 18.0 | | B | DAO | 40 | 4 | 4 | 2 |
| 9575A | | KAND | 08 | 16 | 0835 | S24 | E21 | 08 | 18.0 | | | BXO | | 4 | 3 | 5 |
| 9575A | | RAMY | 08 | 16 | 1222 | S23 | E19 | 08 | 18.0 | | B | DSO | 20 | 3 | 4 | 3 |
| 9575A | 30650 | MWIL | 08 | 16 | 1430 | S23 | E17 | 08 | 17.9 | 4 | (BP) | | | | | |
| 9575A | | HOLL | 08 | 16 | 1448 | S23 | E18 | 08 | 18.0 | | B | BXO | 10 | 3 | 4 | 2 |
| 9592 | | KAND | 08 | 22 | 0720 | S07 | W52 | 08 | 18.4 | | | BXO | | 3 | 3 | 4 |
| 9592 | | RAMY | 08 | 22 | 1140 | S10 | W52 | 08 | 18.6 | | B | BXO | 20 | 2 | 3 | 2 |
| 9592 | | HOLL | 08 | 22 | 1428 | S08 | W55 | 08 | 18.5 | | B | BXO | 20 | 4 | 3 | 3 |
| 9592 | 30663 | MWIL | 08 | 22 | 1500 | S07 | W55 | 08 | 18.5 | 4 | (B ) | | | | | |
| 9592 | | LEAR | 08 | 23 | 0015 | S06 | W63 | 08 | 18.3 | | A | HSX | 50 | 2 | 1 | 2 |
| 9592 | | TACH | 08 | 23 | 0543 | S07 | W61 | 08 | 18.7 | | | CSO | 110 | 2 | 2 | 3 |
| 9592 | | SVTO | 08 | 23 | 0610 | S08 | W65 | 08 | 18.4 | | B | EAO | 90 | 5 | 11 | 2 |
| 9592 | | KAND | 08 | 23 | 0710 | S07 | W65 | 08 | 18.4 | | | CRO | | 2 | 4 | 3 |
| 9592 | | HOLL | 08 | 23 | 1430 | S07 | W68 | 08 | 18.5 | | B | DSO | 80 | 5 | 6 | 4 |
| 9592 | 30663 | MWIL | 08 | 23 | 1500 | S07 | W69 | 08 | 18.4 | 4 | (B ) | | | | | |
| 9592 | | RAMY | 08 | 23 | 1622 | S10 | W65 | 08 | 18.8 | | B | DSO | 80 | 5 | 6 | 2 |
| 9592 | | VORO | 08 | 23 | 2129 | S08 | W72 | 08 | 18.5 | | | DAO | 144 | 3 | 4 | 3 |
| 9592 | | VORO | 08 | 23 | 2129 | S08 | W72 | 08 | 18.5 | | | DAO | 144 | 3 | 4 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9592 | | LEAR | 08 | 24 | 0220 | S08 | W76 | 08 | 18.4 | | B | DAO | 60 | 2 | 8 | 2 |
| 9592 | | SVTO | 08 | 24 | 0610 | S08 | W80 | 08 | 18.2 | | B | DRO | 30 | 3 | 10 | 3 |
| 9592 | | TACH | 08 | 24 | 0638 | S08 | W76 | 08 | 18.6 | | | AR | 27 | 2 | 1 | 3 |
| 9592 | | KAND | 08 | 24 | 0840 | S07 | W81 | 08 | 18.3 | | | BXO | | 5 | 7 | 5 |
| 9592 | | RAMY | 08 | 24 | 1220 | S10 | W78 | 08 | 18.6 | | B | CSO | 30 | 2 | 3 | 3 |
| 9592 | 30663 | MWIL | 08 | 24 | 1445 | S08 | W79 | 08 | 18.7 | 4 | AF | | | | | |
| 9589 | 30659 | MWIL | 08 | 19 | 1800 | N15 | W05 | 08 | 19.4 | 3 | (B ) | | | | | |
| 9589 | | LEAR | 08 | 20 | 0040 | N15 | W08 | 08 | 19.4 | | B | BXO | 10 | 4 | 2 | 3 |
| 9589 | | SVTO | 08 | 20 | 0548 | N15 | W13 | 08 | 19.2 | | B | AXO | 10 | 2 | 2 | 3 |
| 9589 | | TACH | 08 | 20 | 0550 | N14 | W13 | 08 | 19.3 | | | AXX | 6 | 2 | 1 | 3 |
| 9589 | 30659 | MWIL | 08 | 20 | 1500 | N15 | W16 | 08 | 19.4 | 3 | (B ) | | | | | |
| 9589 | | TACH | 08 | 21 | 0604 | N16 | W25 | 08 | 19.3 | | | AXX | 7 | 3 | 1 | 3 |
| 9589 | | RAMY | 08 | 21 | 1206 | N14 | W29 | 08 | 19.3 | | B | CAO | 20 | 7 | 5 | 2 |
| 9589 | 30659 | MWIL | 08 | 21 | 1500 | N17 | W28 | 08 | 19.5 | 4 | (BG) | | | | | |
| 9589 | | VORO | 08 | 21 | 2331 | N16 | W32 | 08 | 19.5 | | | AXX | 26 | 4 | 2 | 3 |
| 9589 | | LEAR | 08 | 22 | 0020 | N17 | W33 | 08 | 19.5 | | B | DAO | 40 | 13 | 5 | 5 |
| 9589 | | TACH | 08 | 22 | 0532 | N16 | W34 | 08 | 19.6 | | | BRO | 45 | 4 | 3 | 3 |
| 9589 | | SVTO | 08 | 22 | 0623 | N15 | W37 | 08 | 19.5 | | B | DAO | 100 | 7 | 5 | 2 |
| 9589 | | KAND | 08 | 22 | 0720 | N17 | W36 | 08 | 19.6 | | | CSO | | 8 | 5 | 4 |
| 9589 | | RAMY | 08 | 22 | 1140 | N14 | W40 | 08 | 19.5 | | B | CSO | 40 | 5 | 5 | 2 |
| 9589 | | HOLL | 08 | 22 | 1428 | N16 | W41 | 08 | 19.5 | | B | CAO | 40 | 8 | 6 | 3 |
| 9589 | 30659 | MWIL | 08 | 22 | 1500 | N17 | W40 | 08 | 19.6 | 4 | (B ) | | | | | |
| 9589 | | LEAR | 08 | 23 | 0015 | N17 | W46 | 08 | 19.5 | | B | DAO | 50 | 8 | 7 | 2 |
| 9589 | | TACH | 08 | 23 | 0543 | N17 | W47 | 08 | 19.7 | | | BRI | 33 | 7 | 3 | 3 |
| 9589 | | SVTO | 08 | 23 | 0610 | N15 | W50 | 08 | 19.5 | | B | BXO | 60 | 9 | 8 | 2 |
| 9589 | | KAND | 08 | 23 | 0710 | N17 | W50 | 08 | 19.5 | | | BXO | | 7 | 6 | 3 |
| 9589 | | HOLL | 08 | 23 | 1430 | N16 | W54 | 08 | 19.5 | | B | CAO | 70 | 12 | 7 | 4 |
| 9589 | 30659 | MWIL | 08 | 23 | 1500 | N17 | W53 | 08 | 19.6 | 4 | (B ) | | | | | |
| 9589 | | RAMY | 08 | 23 | 1622 | N14 | W54 | 08 | 19.6 | | B | CSO | 40 | 10 | 8 | 2 |
| 9589 | | VORO | 08 | 23 | 2129 | N15 | W59 | 08 | 19.4 | | | AXX | 41 | 3 | | 3 |
| 9589 | | VORO | 08 | 23 | 2129 | N15 | W59 | 08 | 19.4 | | | AXX | 41 | 3 | | 3 |
| 9589 | | LEAR | 08 | 24 | 0220 | N16 | W60 | 08 | 19.5 | | B | CSO | 30 | 3 | 4 | 2 |
| 9589 | | SVTO | 08 | 24 | 0610 | N16 | W63 | 08 | 19.5 | | B | DRO | 30 | 4 | 6 | 3 |
| 9589 | | TACH | 08 | 24 | 0638 | N16 | W65 | 08 | 19.3 | | | AR | 12 | 2 | 2 | 3 |
| 9589 | | KAND | 08 | 24 | 0840 | N17 | W66 | 08 | 19.3 | | | BXO | | 3 | 6 | 5 |
| 9589 | | RAMY | 08 | 24 | 1220 | N14 | W67 | 08 | 19.4 | | B | CSO | 20 | 3 | 2 | 3 |
| 9589 | | HOLL | 08 | 24 | 1430 | N16 | W70 | 08 | 19.3 | | A | AXX | 20 | 1 | 1 | 3 |
| 9589 | 30659 | MWIL | 08 | 24 | 1445 | N16 | W70 | 08 | 19.3 | 4 | (AP) | | | | | |
| 9580 | | LEAR | 08 | 14 | 0030 | N22 | E89 | 08 | 20.9 | | A | HSX | 60 | 1 | 2 | 4 |
| 9580 | | SVTO | 08 | 14 | 0515 | N25 | E89 | 08 | 21.1 | | A | HSX | 120 | 1 | 4 | 3 |
| 9580 | | KAND | 08 | 14 | 1015 | N23 | E84 | 08 | 20.9 | | | HA | | 1 | 3 | 4 |
| 9580 | | RAMY | 08 | 14 | 1325 | N24 | E78 | 08 | 20.6 | | A | HSX | 60 | 1 | 2 | 3 |
| 9580 | 30646 | MWIL | 08 | 14 | 1430 | N23 | E78 | 08 | 20.6 | 5 | (AP) | | | | | |
| 9580 | | HOLL | 08 | 14 | 1445 | N24 | E79 | 08 | 20.7 | | A | HAX | 120 | 1 | 2 | 3 |
| 9580 | | VORO | 08 | 14 | 2235 | N24 | E75 | 08 | 20.7 | | | HAX | 146 | 1 | | 3 |
| 9580 | | SVTO | 08 | 15 | 0600 | N25 | E71 | 08 | 20.7 | | A | HAX | 180 | 1 | 4 | 3 |
| 9580 | | KAND | 08 | 15 | 0730 | N23 | E70 | 08 | 20.7 | | | HS | | 1 | 3 | 4 |
| 9580 | | RAMY | 08 | 15 | 1300 | N25 | E67 | 08 | 20.7 | | A | HSX | 90 | 1 | 2 | 3 |
| 9580 | 30646 | MWIL | 08 | 15 | 1500 | N24 | E66 | 08 | 20.7 | 5 | (AP) | | | | | |
| 9580 | | VORO | 08 | 16 | 0335 | N24 | E59 | 08 | 20.7 | | | HAX | 111 | 1 | | 3 |
| 9580 | | TACH | 08 | 16 | 0529 | N23 | E57 | 08 | 20.6 | | | HSX | 10 | 1 | 1 | 4 |
| 9580 | | SVTO | 08 | 16 | 0622 | N26 | E58 | 08 | 20.8 | | A | HSX | 100 | 1 | 4 | 2 |
| 9580 | | KAND | 08 | 16 | 0835 | N24 | E56 | 08 | 20.7 | | | HS | | 1 | 2 | 5 |
| 9580 | | RAMY | 08 | 16 | 1222 | N25 | E54 | 08 | 20.7 | | A | HSX | 70 | 1 | 1 | 3 |
| 9580 | 30646 | MWIL | 08 | 16 | 1430 | N24 | E52 | 08 | 20.6 | 5 | (AP) | | | | | |
| 9580 | | HOLL | 08 | 16 | 1448 | N25 | E52 | 08 | 20.6 | | A | HSX | 80 | 1 | 1 | 2 |
| 9580 | | VORO | 08 | 16 | 2240 | N24 | E49 | 08 | 20.7 | | | HAX | 27 | 1 | | 3 |
| 9580 | | LEAR | 08 | 17 | 0200 | N22 | E46 | 08 | 20.6 | | A | HAX | 100 | 1 | 2 | 4 |
| 9580 | | TACH | 08 | 17 | 0512 | N24 | E43 | 08 | 20.5 | | | HSX | 120 | 1 | 1 | 4 |
| 9580 | | SVTO | 08 | 17 | 0638 | N25 | E44 | 08 | 20.7 | | A | HAX | 80 | 1 | 3 | 3 |
| 9580 | | KAND | 08 | 17 | 0910 | N24 | E42 | 08 | 20.6 | | | HS | | 1 | 2 | 3 |
| 9580 | | RAMY | 08 | 17 | 1239 | N25 | E40 | 08 | 20.6 | | A | HSX | 80 | 1 | 1 | 2 |
| 9580 | | HOLL | 08 | 17 | 1404 | N25 | E40 | 08 | 20.7 | | B | CAO | 80 | 3 | 3 | 4 |
| 9580 | 30646 | MWIL | 08 | 17 | 1500 | N24 | E39 | 08 | 20.6 | 5 | (AP) | | | | | |
| 9580 | | LEAR | 08 | 18 | 0320 | N25 | E32 | 08 | 20.6 | | A | HSX | 100 | 1 | 2 | 4 |
| 9580 | | TACH | 08 | 18 | 0552 | N24 | E31 | 08 | 20.6 | | | HSX | 250 | 1 | 1 | 3 |
| 9580 | | KAND | 08 | 18 | 0705 | N25 | E31 | 08 | 20.7 | | | HS | | 1 | 2 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9580 | | SVTO | 08 | 18 | 0800 | N25 | E32 | 08 | 20.8 | | A | HAX | 100 | 1 | 2 | 3 |
| 9580 | | RAMY | 08 | 18 | 1208 | N25 | E27 | 08 | 20.6 | | A | HSX | 90 | 1 | 2 | 2 |
| 9580 | 30646 | MWIL | 08 | 18 | 1500 | N24 | E26 | 08 | 20.6 | 5 | (AP) | | | | | |
| 9580 | | LEAR | 08 | 19 | 0015 | N25 | E22 | 08 | 20.7 | | A | HSX | 110 | 1 | 2 | 4 |
| 9580 | | VORO | 08 | 19 | 0048 | N25 | E21 | 08 | 20.7 | | | HHX | 110 | 1 | | 3 |
| 9580 | | TACH | 08 | 19 | 0550 | N28 | E17 | 08 | 20.6 | | | HSX | 150 | 8 | 1 | 4 |
| 9580 | | SVTO | 08 | 19 | 0555 | N26 | E18 | 08 | 20.6 | | A | HAX | 130 | 1 | 3 | 3 |
| 9580 | | RAMY | 08 | 19 | 1410 | N25 | E12 | 08 | 20.5 | | A | HSX | 50 | 1 | 2 | 1 |
| 9580 | | HOLL | 08 | 19 | 1420 | N26 | E13 | 08 | 20.6 | | A | HAX | 60 | 1 | 2 | 4 |
| 9580 | 30646 | MWIL | 08 | 19 | 1800 | N24 | E11 | 08 | 20.6 | 5 | (AP) | | | | | |
| 9580 | | LEAR | 08 | 20 | 0040 | N24 | E08 | 08 | 20.6 | | A | HSX | 100 | 1 | 2 | 3 |
| 9580 | | VORO | 08 | 20 | 0406 | N25 | E06 | 08 | 20.6 | | | HSX | 147 | 1 | | 2 |
| 9580 | | SVTO | 08 | 20 | 0548 | N25 | E04 | 08 | 20.5 | | A | HSX | 100 | 1 | 4 | 3 |
| 9580 | | TACH | 08 | 20 | 0550 | N25 | E04 | 08 | 20.5 | | | HSX | 200 | 1 | 1 | 3 |
| 9580 | | RAMY | 08 | 20 | 1208 | N25 | E01 | 08 | 20.6 | | A | HSX | 100 | 1 | 2 | 2 |
| 9580 | | HOLL | 08 | 20 | 1438 | N25 | E01 | 08 | 20.7 | | A | HAX | 120 | 1 | 2 | 3 |
| 9580 | 30646 | MWIL | 08 | 20 | 1500 | N25 | E01 | 08 | 20.7 | 5 | (AP) | | | | | |
| 9580 | | LEAR | 08 | 21 | 0030 | N25 | W05 | 08 | 20.6 | | A | HSX | 100 | 1 | 2 | 2 |
| 9580 | | TACH | 08 | 21 | 0604 | N25 | W07 | 08 | 20.7 | | | HSX | 250 | 1 | 2 | 3 |
| 9580 | | SVTO | 08 | 21 | 0614 | N25 | W08 | 08 | 20.6 | | A | HSX | 80 | 1 | 3 | 3 |
| 9580 | | KAND | 08 | 21 | 0805 | N25 | W08 | 08 | 20.7 | | | HS | | 1 | 2 | 3 |
| 9580 | | RAMY | 08 | 21 | 1206 | N24 | W13 | 08 | 20.5 | | A | HSX | 90 | 1 | 2 | 2 |
| 9580 | 30646 | MWIL | 08 | 21 | 1500 | N25 | W13 | 08 | 20.6 | 5 | (AP) | | | | | |
| 9580 | | VORO | 08 | 21 | 2331 | N25 | W17 | 08 | 20.7 | | | HSX | 145 | 1 | | 3 |
| 9580 | | LEAR | 08 | 22 | 0020 | N24 | W17 | 08 | 20.7 | | A | HSX | 80 | 1 | 2 | 5 |
| 9580 | | TACH | 08 | 22 | 0532 | N24 | W19 | 08 | 20.8 | | | HSX | 200 | 1 | 1 | 3 |
| 9580 | | SVTO | 08 | 22 | 0623 | N24 | W22 | 08 | 20.6 | | A | HAX | 120 | 1 | 4 | 2 |
| 9580 | | KAND | 08 | 22 | 0720 | N25 | W21 | 08 | 20.7 | | | HS | | 1 | 2 | 4 |
| 9580 | | RAMY | 08 | 22 | 1140 | N23 | W24 | 08 | 20.6 | | A | HSX | 80 | 1 | 2 | 2 |
| 9580 | | HOLL | 08 | 22 | 1428 | N24 | W26 | 08 | 20.6 | | A | HSX | 110 | 1 | 2 | 3 |
| 9580 | 30646 | MWIL | 08 | 22 | 1500 | N24 | W25 | 08 | 20.7 | 5 | (AP) | | | | | |
| 9580 | | VORO | 08 | 22 | 2233 | N25 | W30 | 08 | 20.6 | | | HSX | 131 | 1 | | 1 |
| 9580 | | LEAR | 08 | 23 | 0015 | N25 | W30 | 08 | 20.7 | | A | HSX | 110 | 1 | 2 | 2 |
| 9580 | | TACH | 08 | 23 | 0543 | N25 | W33 | 08 | 20.7 | | | HSX | 200 | 1 | 2 | 3 |
| 9580 | | SVTO | 08 | 23 | 0610 | N24 | W34 | 08 | 20.6 | | A | HSX | 90 | 1 | 2 | 2 |
| 9580 | | KAND | 08 | 23 | 0710 | N25 | W33 | 08 | 20.7 | | | HS | | 1 | 2 | 3 |
| 9580 | | HOLL | 08 | 23 | 1430 | N25 | W37 | 08 | 20.7 | | A | HSX | 130 | 3 | 2 | 4 |
| 9580 | 30646 | MWIL | 08 | 23 | 1500 | N25 | W37 | 08 | 20.7 | 5 | (AP) | | | | | |
| 9580 | | RAMY | 08 | 23 | 1622 | N23 | W39 | 08 | 20.7 | | A | HSX | 80 | 1 | 2 | 2 |
| 9580 | | VORO | 08 | 23 | 2129 | N25 | W41 | 08 | 20.7 | | | HSX | 204 | 2 | | 3 |
| 9580 | | LEAR | 08 | 24 | 0220 | N25 | W43 | 08 | 20.8 | | A | HSX | 100 | 1 | 2 | 2 |
| 9580 | | SVTO | 08 | 24 | 0610 | N26 | W45 | 08 | 20.8 | | B | CSO | 100 | 2 | 7 | 3 |
| 9580 | | TACH | 08 | 24 | 0638 | N25 | W45 | 08 | 20.8 | | | HSX | 180 | 1 | 2 | 3 |
| 9580 | | KAND | 08 | 24 | 0840 | N26 | W48 | 08 | 20.6 | | | HA | | 1 | 2 | 5 |
| 9580 | | RAMY | 08 | 24 | 1220 | N24 | W49 | 08 | 20.7 | | B | CSO | 70 | 2 | 4 | 3 |
| 9580 | | HOLL | 08 | 24 | 1430 | N25 | W50 | 08 | 20.7 | | A | HAX | 90 | 2 | 5 | 3 |
| 9580 | 30646 | MWIL | 08 | 24 | 1445 | N25 | W50 | 08 | 20.7 | 5 | (AP) | | | | | |
| 9580 | | VORO | 08 | 25 | 0112 | N25 | W57 | 08 | 20.6 | | | HSX | 277 | 1 | | 2 |
| 9580 | | LEAR | 08 | 25 | 0149 | N25 | W57 | 08 | 20.6 | | A | HSX | 80 | 1 | 2 | 2 |
| 9580 | | SVTO | 08 | 25 | 0607 | N24 | W59 | 08 | 20.7 | | A | HSX | 110 | 1 | 3 | 2 |
| 9580 | | KAND | 08 | 25 | 0900 | N26 | W61 | 08 | 20.6 | | | HS | | 1 | 2 | 4 |
| 9580 | | RAMY | 08 | 25 | 1200 | N22 | W63 | 08 | 20.6 | | A | HSX | 80 | 1 | 2 | 3 |
| 9580 | 30646 | MWIL | 08 | 25 | 1445 | N26 | W62 | 08 | 20.8 | 5 | (AP) | | | | | |
| 9580 | | HOLL | 08 | 25 | 1725 | N24 | W65 | 08 | 20.7 | | A | HAX | 80 | 1 | 2 | 4 |
| 9580 | | VORO | 08 | 25 | 2201 | N25 | W67 | 08 | 20.7 | | | HAX | 97 | 1 | | 2 |
| 9580 | | LEAR | 08 | 26 | 0115 | N24 | W69 | 08 | 20.7 | | A | HSX | 110 | 1 | 2 | 2 |
| 9580 | | SVTO | 08 | 26 | 0720 | N24 | W74 | 08 | 20.6 | | A | HSX | 80 | 1 | 2 | 3 |
| 9580 | | KAND | 08 | 26 | 0950 | N25 | W73 | 08 | 20.7 | | | HS | | 1 | 2 | 5 |
| 9580 | | RAMY | 08 | 26 | 1140 | N21 | W74 | 08 | 20.8 | | A | HSX | 30 | 1 | 1 | 3 |
| 9580 | 30646 | MWIL | 08 | 26 | 1445 | N25 | W75 | 08 | 20.8 | 5 | (AP) | | | | | |
| 9580 | | HOLL | 08 | 26 | 1510 | N23 | W78 | 08 | 20.6 | | A | HAX | 120 | 1 | 2 | 3 |
| 9580 | | VORO | 08 | 26 | 2235 | N25 | W80 | 08 | 20.7 | | | HAX | 110 | 1 | | 2 |
| 9580 | | LEAR | 08 | 27 | 0202 | N23 | W81 | 08 | 20.8 | | A | HSX | 100 | 1 | 2 | 2 |
| 9580 | | SVTO | 08 | 27 | 0625 | N23 | W86 | 08 | 20.6 | | A | HSX | 60 | 1 | 2 | 3 |
| 9580 | | KAND | 08 | 27 | 0740 | N26 | W88 | 08 | 20.5 | | | HA | | 1 | 2 | 5 |
| 9580A | | LEAR | 08 | 17 | 0200 | N23 | E55 | 08 | 21.3 | | A | AXX | | 1 | | 4 |
| 9584 | 30652 | MWIL | 08 | 15 | 1500 | S12 | E77 | 08 | 21.4 | 3 | (AP) | | | | | |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9584 | | TACH | 08 | 16 | 0529 | S12 | E66 | 08 | 21.2 | | | AXX | 5 | 1 | 1 | 4 |
| 9584 | | SVTO | 08 | 16 | 0622 | S11 | E69 | 08 | 21.4 | | A | HRX | 30 | 1 | 1 | 2 |
| 9584 | | KAND | 08 | 16 | 0835 | S13 | E70 | 08 | 21.6 | | | BXO | | 2 | 8 | 5 |
| 9584 | | RAMY | 08 | 16 | 1222 | S11 | E65 | 08 | 21.4 | | A | AXX | 10 | 1 | | 3 |
| 9584 | 30652 | MWIL | 08 | 16 | 1430 | S13 | E66 | 08 | 21.6 | 4 | (B ) | | | | | |
| 9584 | | HOLL | 08 | 16 | 1448 | S12 | E65 | 08 | 21.5 | | B | BXO | 30 | 2 | 6 | 2 |
| 9584 | | LEAR | 08 | 17 | 0200 | S14 | E58 | 08 | 21.5 | | B | CSO | 30 | 2 | 3 | 4 |
| 9584 | | SVTO | 08 | 17 | 0638 | S13 | E59 | 08 | 21.7 | | B | CAO | 40 | 4 | 6 | 3 |
| 9584 | | KAND | 08 | 17 | 0910 | S14 | E56 | 08 | 21.6 | | | CSO | | 4 | 7 | 3 |
| 9584 | | RAMY | 08 | 17 | 1239 | S12 | E53 | 08 | 21.5 | | B | CSO | 30 | 2 | 3 | 2 |
| 9584 | | HOLL | 08 | 17 | 1404 | S12 | E51 | 08 | 21.4 | | B | CAO | 50 | 10 | 4 | 4 |
| 9584 | 30652 | MWIL | 08 | 17 | 1500 | S13 | E51 | 08 | 21.5 | 5 | (B ) | | | | | |
| 9584 | | LEAR | 08 | 18 | 0320 | S13 | E44 | 08 | 21.4 | | B | DAO | 70 | 8 | 5 | 4 |
| 9584 | | KAND | 08 | 18 | 0705 | S13 | E42 | 08 | 21.5 | | | CRO | | 4 | 4 | 3 |
| 9584 | | SVTO | 08 | 18 | 0800 | S13 | E44 | 08 | 21.6 | | B | DAO | 50 | 8 | 7 | 3 |
| 9584 | | RAMY | 08 | 18 | 1208 | S12 | E41 | 08 | 21.6 | | B | CSO | 20 | 2 | 4 | 2 |
| 9584 | 30652 | MWIL | 08 | 18 | 1500 | S13 | E38 | 08 | 21.5 | 4 | (B ) | | | | | |
| 9584 | | LEAR | 08 | 19 | 0015 | S13 | E33 | 08 | 21.5 | | B | CAO | 40 | 5 | 4 | 4 |
| 9584 | | SVTO | 08 | 19 | 0555 | S12 | E28 | 08 | 21.3 | | B | DAO | 20 | 3 | 2 | 3 |
| 9584 | | RAMY | 08 | 19 | 1410 | S11 | E23 | 08 | 21.3 | | A | HSX | 10 | 1 | 1 | 1 |
| 9584 | | HOLL | 08 | 19 | 1420 | S11 | E25 | 08 | 21.5 | | B | CSO | 20 | 2 | 3 | 4 |
| 9584 | 30652 | MWIL | 08 | 19 | 1800 | S12 | E20 | 08 | 21.2 | 4 | (AP) | | | | | |
| 9584 | | LEAR | 08 | 20 | 0040 | S12 | E17 | 08 | 21.3 | | A | AXX | | 2 | 1 | 3 |
| 9584 | | SVTO | 08 | 20 | 0548 | S12 | E14 | 08 | 21.3 | | B | AXO | 10 | 2 | 1 | 3 |
| 9584 | | TACH | 08 | 20 | 0550 | S11 | E17 | 08 | 21.5 | | | BRO | 32 | 3 | 10 | 3 |
| 9584 | | RAMY | 08 | 20 | 1208 | S11 | E11 | 08 | 21.3 | | A | HSX | 10 | 1 | 1 | 2 |
| 9584 | | HOLL | 08 | 20 | 1438 | S13 | E10 | 08 | 21.4 | | A | AXX | 10 | 5 | 2 | 3 |
| 9584 | 30652 | MWIL | 08 | 20 | 1500 | S12 | E09 | 08 | 21.3 | 4 | (AP) | | | | | |
| 9584 | | LEAR | 08 | 21 | 0030 | S12 | E04 | 08 | 21.3 | | A | AXX | 10 | 2 | 1 | 2 |
| 9584 | | TACH | 08 | 21 | 0604 | S10 | E05 | 08 | 21.6 | | | BRO | 40 | 3 | 10 | 3 |
| 9584 | | SVTO | 08 | 21 | 0614 | S12 | E01 | 08 | 21.3 | | B | AXO | 10 | 2 | 1 | 3 |
| 9584 | | KAND | 08 | 21 | 0805 | S12 | W01 | 08 | 21.3 | | | AX | | 2 | 1 | 3 |
| 9584 | | RAMY | 08 | 21 | 1206 | S12 | W03 | 08 | 21.3 | | A | AXX | 10 | 1 | | 2 |
| 9584 | 30652 | MWIL | 08 | 21 | 1500 | S12 | W05 | 08 | 21.2 | 4 | (AP) | | | | | |
| 9584 | | LEAR | 08 | 22 | 0020 | S12 | W11 | 08 | 21.2 | | A | AXX | 10 | 1 | 1 | 5 |
| 9584 | | KAND | 08 | 22 | 0720 | S11 | W14 | 08 | 21.2 | | | AX | | 1 | | 4 |
| 9582 | | SVTO | 08 | 15 | 0600 | N32 | E85 | 08 | 22.0 | | B | CAO | 60 | 3 | 3 | 3 |
| 9582 | | RAMY | 08 | 15 | 1300 | N31 | E76 | 08 | 21.5 | | A | HSX | 20 | 1 | 1 | 3 |
| 9582 | 30651 | MWIL | 08 | 15 | 1500 | N31 | E77 | 08 | 21.7 | 4 | (AF) | | | | | |
| 9582 | | TACH | 08 | 16 | 0529 | N31 | E68 | 08 | 21.6 | | | HSX | 30 | 1 | 1 | 4 |
| 9582 | | SVTO | 08 | 16 | 0622 | N32 | E69 | 08 | 21.7 | | A | AAX | 50 | 2 | 1 | 2 |
| 9582 | | KAND | 08 | 16 | 0835 | N30 | E66 | 08 | 21.5 | | | AX | | 2 | 2 | 5 |
| 9582 | | RAMY | 08 | 16 | 1222 | N32 | E64 | 08 | 21.6 | | A | AXX | 20 | 2 | 2 | 3 |
| 9582 | 30651 | MWIL | 08 | 16 | 1430 | N30 | E62 | 08 | 21.5 | 4 | (AF) | | | | | |
| 9582 | | HOLL | 08 | 16 | 1448 | N32 | E64 | 08 | 21.7 | | A | AXX | 20 | 3 | 2 | 2 |
| 9582 | | VORO | 08 | 16 | 2240 | N31 | E58 | 08 | 21.5 | | | AXX | 28 | 1 | | 3 |
| 9582 | | LEAR | 08 | 17 | 0200 | N28 | E56 | 08 | 21.5 | | A | HRX | 20 | 1 | 1 | 4 |
| 9582 | | TACH | 08 | 17 | 0512 | N31 | E54 | 08 | 21.5 | | | AXX | 3 | 1 | 1 | 4 |
| 9582 | | SVTO | 08 | 17 | 0638 | N31 | E55 | 08 | 21.6 | | B | BXO | 20 | 3 | 3 | 3 |
| 9582 | | KAND | 08 | 17 | 0910 | N30 | E53 | 08 | 21.5 | | | AX | | 3 | 3 | 3 |
| 9582 | | RAMY | 08 | 17 | 1239 | N33 | E50 | 08 | 21.5 | | A | AXX | 20 | 2 | 2 | 2 |
| 9582 | | HOLL | 08 | 17 | 1404 | N31 | E50 | 08 | 21.5 | | A | AXX | 10 | 2 | 1 | 4 |
| 9582 | 30651 | MWIL | 08 | 17 | 1500 | N30 | E49 | 08 | 21.5 | 4 | (BP) | | | | | |
| 9582 | | LEAR | 08 | 18 | 0320 | N28 | E43 | 08 | 21.5 | | B | DAO | 70 | 8 | 6 | 4 |
| 9582 | | TACH | 08 | 18 | 0552 | N29 | E45 | 08 | 21.8 | | | AR | 15 | 5 | 2 | 3 |
| 9582 | | KAND | 08 | 18 | 0705 | N28 | E41 | 08 | 21.5 | | | CRO | | 8 | 5 | 3 |
| 9582 | | SVTO | 08 | 18 | 0800 | N27 | E43 | 08 | 21.7 | | B | DAO | 60 | 9 | 8 | 3 |
| 9582 | | RAMY | 08 | 18 | 1208 | N29 | E38 | 08 | 21.5 | | B | DSO | 70 | 8 | 6 | 2 |
| 9582 | 30651 | MWIL | 08 | 18 | 1500 | N28 | E37 | 08 | 21.5 | 5 | (B ) | | | | | |
| 9582 | | LEAR | 08 | 19 | 0015 | N28 | E34 | 08 | 21.7 | | B | DAO | 80 | 11 | 7 | 4 |
| 9582 | | VORO | 08 | 19 | 0048 | N28 | E32 | 08 | 21.5 | | | DSO | 182 | 7 | 6 | 3 |
| 9582 | | TA6H | 08 | 19 | 0550 | N28 | E29 | 08 | 21.5 | | | DAI | 115 | 9 | 7 | 4 |
| 9582 | | SVTO | 08 | 19 | 0555 | N28 | E28 | 08 | 21.4 | | BG | DAI | 180 | 14 | 10 | 3 |
| 9582 | | RAMY | 08 | 19 | 1410 | N28 | E23 | 08 | 21.4 | | B | DSO | 50 | 7 | 8 | 1 |
| 9582 | | HOLL | 08 | 19 | 1420 | N28 | E25 | 08 | 21.5 | | B | DSO | 90 | 11 | 8 | 4 |
| 9582 | 30651 | MWIL | 08 | 19 | 1800 | N28 | E23 | 08 | 21.5 | 5 | (B ) | | | | | |
| 9582 | | LEAR | 08 | 20 | 0040 | N28 | E18 | 08 | 21.4 | | B | DSO | 130 | 28 | 10 | 3 |
| 9582 | | VORO | 08 | 20 | 0406 | N28 | E16 | 08 | 21.4 | | | DRI | 169 | 9 | 7 | 2 |

# S U N S P O T  G R O U P S
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9582 | | SVTO | 08 | 20 | 0548 | N29 | E14 | 08 | 21.3 | | B | DSO | 140 | 20 | 10 | 3 |
| 9582 | | TACH | 08 | 20 | 0550 | N25 | E15 | 08 | 21.4 | | | DAI | 251 | 13 | 7 | 3 |
| 9582 | | RAMY | 08 | 20 | 1208 | N28 | E11 | 08 | 21.4 | | B | DAO | 110 | 14 | 8 | 2 |
| 9582 | | HOLL | 08 | 20 | 1438 | N27 | E12 | 08 | 21.5 | | BG | DAO | 150 | 28 | 9 | 3 |
| 9582 | 30651 | MWIL | 08 | 20 | 1500 | N28 | E12 | 08 | 21.6 | 5 | (B ) | | | | | |
| 9582 | | LEAR | 08 | 21 | 0030 | N27 | E06 | 08 | 21.5 | | B | DAO | 140 | 28 | 10 | 2 |
| 9582 | | TACH | 08 | 21 | 0604 | N27 | E04 | 08 | 21.6 | | | CAI | 211 | 21 | 9 | 3 |
| 9582 | | SVTO | 08 | 21 | 0614 | N28 | E02 | 08 | 21.4 | | B | EAO | 100 | 28 | 12 | 3 |
| 9582 | | KAND | 08 | 21 | 0805 | N28 | E02 | 08 | 21.5 | | | DSI | | 28 | 10 | 3 |
| 9582 | | RAMY | 08 | 21 | 1206 | N28 | W03 | 08 | 21.3 | | B | DAC | 180 | 18 | 10 | 2 |
| 9582 | 30651 | MWIL | 08 | 21 | 1500 | N28 | W03 | 08 | 21.4 | 4 | (BG) | | | | | |
| 9582 | | VORO | 08 | 21 | 2331 | N28 | W07 | 08 | 21.4 | | | DRI | 106 | 10 | 10 | 3 |
| 9582 | | LEAR | 08 | 22 | 0020 | N27 | W07 | 08 | 21.5 | | B | DSO | 160 | 28 | 9 | 5 |
| 9582 | | TACH | 08 | 22 | 0532 | N28 | W09 | 08 | 21.5 | | | BRI | 66 | 10 | 9 | 3 |
| 9582 | | SVTO | 08 | 22 | 0623 | N28 | W12 | 08 | 21.3 | | B | EAO | 130 | 21 | 12 | 2 |
| 9582 | | KAND | 08 | 22 | 0720 | N29 | W10 | 08 | 21.5 | | | EAO | | 27 | 11 | 4 |
| 9582 | | RAMY | 08 | 22 | 1140 | N27 | W16 | 08 | 21.2 | | B | DSI | 80 | 12 | 9 | 2 |
| 9582 | | HOLL | 08 | 22 | 1428 | N27 | W15 | 08 | 21.4 | | B | ESO | 60 | 18 | 11 | 3 |
| 9582 | 30651 | MWIL | 08 | 22 | 1500 | N28 | W14 | 08 | 21.5 | 4 | (B ) | | | | | |
| 9582 | | VORO | 08 | 22 | 2233 | N28 | W20 | 08 | 21.4 | | | CRI | 70 | 7 | 9 | 1 |
| 9582 | | LEAR | 08 | 23 | 0015 | N28 | W20 | 08 | 21.4 | | B | DAO | 90 | 15 | 9 | 2 |
| 9582 | | TACH | 08 | 23 | 0543 | N28 | W24 | 08 | 21.4 | | | BRI | 87 | 6 | 7 | 3 |
| 9582 | | SVTO | 08 | 23 | 0610 | N28 | W25 | 08 | 21.3 | | B | EAO | 40 | 13 | 12 | 2 |
| 9582 | | KAND | 08 | 23 | 0710 | N29 | W23 | 08 | 21.5 | | | CRO | | 5 | 9 | 3 |
| 9582 | | HOLL | 08 | 23 | 1430 | N28 | W28 | 08 | 21.4 | | B | BXO | 40 | 17 | 8 | 4 |
| 9582 | 30651 | MWIL | 08 | 23 | 1500 | N28 | W28 | 08 | 21.4 | 4 | (B ) | | | | | |
| 9582 | | RAMY | 08 | 23 | 1622 | N28 | W30 | 08 | 21.3 | | B | CSO | 30 | 6 | 8 | 2 |
| 9582 | | VORO | 08 | 23 | 2129 | N28 | W36 | 08 | 21.1 | | | AXX | 10 | 1 | | 3 |
| 9582 | | LEAR | 08 | 24 | 0220 | N27 | W37 | 08 | 21.2 | | B | CSO | 40 | 4 | 6 | 2 |
| 9582 | | TACH | 08 | 24 | 0638 | N28 | W41 | 08 | 21.1 | | | AXX | 15 | 1 | 1 | 3 |
| 9582 | | KAND | 08 | 24 | 0840 | N28 | W43 | 08 | 21.0 | | | AX | | 1 | | 5 |
| 9582 | 30651 | MWIL | 08 | 24 | 1445 | N27 | W46 | 08 | 21.0 | 4 | (AP) | | | | | |
| 9584A | | KAND | 08 | 16 | 0835 | N14 | E69 | 08 | 21.6 | | | AX | | 1 | | 5 |
| 9584A | 30654 | MWIL | 08 | 16 | 1430 | N15 | E63 | 08 | 21.4 | 4 | (B ) | | | | | |
| 9584A | | HOLL | 08 | 17 | 1404 | N16 | E50 | 08 | 21.4 | | B | BXO | 10 | 3 | 3 | 4 |
| 9584A | 30654 | MWIL | 08 | 17 | 1500 | N15 | E50 | 08 | 21.4 | 4 | (B ) | | | | | |
| 9584A | | SVTO | 08 | 18 | 0800 | N16 | E44 | 08 | 21.7 | | A | HRX | 10 | 1 | 1 | 3 |
| 9584A | 30654 | MWIL | 08 | 18 | 1500 | N16 | E37 | 08 | 21.4 | 3 | (AF) | | | | | |
| 9582A | | TACH | 08 | 23 | 0543 | N09 | W22 | 08 | 21.6 | | | AXX | 25 | 1 | 1 | 3 |
| 9587 | | KAND | 08 | 16 | 0835 | S12 | E78 | 08 | 22.2 | | | AX | | 1 | | 5 |
| 9587 | 30655 | MWIL | 08 | 16 | 1430 | S12 | E75 | 08 | 22.2 | 4 | (AP) | | | | | |
| 9587 | | TACH | 08 | 17 | 0512 | S12 | E61 | 08 | 21.8 | | | BRO | 8 | 2 | 11 | 4 |
| 9587 | | SVTO | 08 | 17 | 0638 | S11 | E66 | 08 | 22.2 | | A | HRX | 30 | 1 | 1 | 3 |
| 9587 | | KAND | 08 | 17 | 0910 | S12 | E63 | 08 | 22.1 | | | HA | | 1 | 1 | 3 |
| 9587 | | RAMY | 08 | 17 | 1239 | S09 | E63 | 08 | 22.2 | | A | HSX | 20 | 1 | 1 | 2 |
| 9587 | | HOLL | 08 | 17 | 1404 | S11 | E61 | 08 | 22.2 | | A | HSX | 20 | 1 | 1 | 4 |
| 9587 | 30655 | MWIL | 08 | 17 | 1500 | S11 | E60 | 08 | 22.1 | 4 | (AP) | | | | | |
| 9587 | | LEAR | 08 | 18 | 0320 | S11 | E53 | 08 | 22.1 | | A | HAX | 20 | 1 | 1 | 4 |
| 9587 | | TACH | 08 | 18 | 0552 | S12 | E46 | 08 | 21.7 | | | BRO | 45 | 2 | 10 | 3 |
| 9587 | | KAND | 08 | 18 | 0705 | S11 | E52 | 08 | 22.2 | | | AX | | 1 | | 3 |
| 9587 | | SVTO | 08 | 18 | 0800 | S11 | E52 | 08 | 22.2 | | A | HRX | 20 | 1 | 2 | 3 |
| 9587 | | RAMY | 08 | 18 | 1208 | S10 | E49 | 08 | 22.2 | | A | HSX | 20 | 1 | 1 | 2 |
| 9587 | 30655 | MWIL | 08 | 18 | 1500 | S11 | E47 | 08 | 22.2 | 4 | (AP) | | | | | |
| 9587 | | LEAR | 08 | 19 | 0015 | S11 | E41 | 08 | 22.1 | | A | HRX | 20 | 1 | 1 | 4 |
| 9587 | | VORO | 08 | 19 | 0048 | S11 | E36 | 08 | 21.7 | | | BXO | 37 | 2 | 10 | 3 |
| 9587 | | TACH | 08 | 19 | 0550 | S11 | E33 | 08 | 21.7 | | | BRO | 10 | 2 | 10 | 4 |
| 9587 | | SVTO | 08 | 19 | 0555 | S11 | E38 | 08 | 22.1 | | A | HAX | 10 | 1 | 1 | 3 |
| 9587 | | RAMY | 08 | 19 | 1410 | S10 | E34 | 08 | 22.1 | | A | HSX | 10 | 1 | 1 | 1 |
| 9587 | | HOLL | 08 | 19 | 1420 | S10 | E33 | 08 | 22.1 | | A | HSX | 20 | 1 | 1 | 4 |
| 9587 | 30655 | MWIL | 08 | 19 | 1800 | S11 | E30 | 08 | 22.0 | 4 | (AP) | | | | | |
| 9587 | | LEAR | 08 | 20 | 0040 | S11 | E27 | 08 | 22.0 | | A | AXX | | 1 | | 3 |
| 9587 | | VORO | 08 | 20 | 0406 | S11 | E25 | 08 | 22.0 | | | AXX | 8 | 1 | | 2 |
| 9587 | | SVTO | 08 | 20 | 0548 | S11 | E24 | 08 | 22.0 | | A | HRX | 10 | 1 | 1 | 3 |
| 9587 | | RAMY | 08 | 20 | 1208 | S10 | E21 | 08 | 22.1 | | A | HSX | 10 | 1 | 1 | 2 |
| 9587 | | HOLL | 08 | 20 | 1438 | S11 | E19 | 08 | 22.0 | | A | HSX | 10 | 3 | 1 | 3 |
| 9587 | 30655 | MWIL | 08 | 20 | 1500 | S10 | E18 | 08 | 22.0 | 4 | (AP) | | | | | |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9587 | | LEAR | 08 | 21 | 0030 | S11 | E14 | 08 | 22.1 | | B | BRO | 20 | 2 | 3 | 2 |
| 9587 | | SVTO | 08 | 21 | 0614 | S10 | E11 | 08 | 22.1 | | A | HRX | 10 | 1 | 1 | 3 |
| 9587 | | KAND | 08 | 21 | 0805 | S10 | E09 | 08 | 22.0 | | | HR | | 1 | 1 | 3 |
| 9587 | | RAMY | 08 | 21 | 1206 | S09 | E07 | 08 | 22.0 | | A | AXX | 10 | 1 | | 2 |
| 9587 | 30655 | MWIL | 08 | 21 | 1500 | S10 | E05 | 08 | 22.0 | 4 | (AP) | | | | | |
| 9587 | | LEAR | 08 | 22 | 0020 | S10 | W01 | 08 | 21.9 | | A | AXX | 10 | 1 | 1 | 5 |
| 9587 | | KAND | 08 | 22 | 0720 | S09 | W04 | 08 | 22.0 | | | AX | | 1 | | 4 |
| 9587 | | KAND | 08 | 23 | 0840 | S11 | W17 | 08 | 22.1 | | | BXO | | 2 | 3 | 5 |
| 9587 | | RAMY | 08 | 24 | 1220 | S11 | W29 | 08 | 22.3 | | A | AXX | | 1 | | 3 |
| 9587 | | HOLL | 08 | 24 | 1430 | S11 | W31 | 08 | 22.3 | | A | AXX | 10 | 3 | 2 | 3 |
| 9587 | 30668 | MWIL | 08 | 24 | 1445 | S11 | W31 | 08 | 22.3 | 4 | (B ) | | | | | |
| 9587 | | SVTO | 08 | 25 | 0607 | S10 | W41 | 08 | 22.2 | | B | BXO | 10 | 4 | 4 | 2 |
| 9587 | | KAND | 08 | 25 | 0900 | S08 | W43 | 08 | 22.1 | | | BXO | | 5 | 4 | 4 |
| 9587 | | RAMY | 08 | 25 | 1200 | S11 | W43 | 08 | 22.3 | | B | DSO | 20 | 7 | 3 | 3 |
| 9587 | 30668 | MWIL | 08 | 25 | 1445 | S09 | W46 | 08 | 22.2 | 5 | (B ) | | | | | |
| 9587 | | HOLL | 08 | 25 | 1725 | S10 | W48 | 08 | 22.1 | | B | DAO | 110 | 9 | 4 | 4 |
| 9587 | | VORO | 08 | 25 | 2201 | S09 | W51 | 08 | 22.1 | | | DAO | 162 | 4 | 4 | 2 |
| 9587 | | VORO | 08 | 25 | 2201 | S09 | W51 | 08 | 22.1 | | | DAO | 162 | 4 | 4 | 2 |
| 9587 | | LEAR | 08 | 26 | 0115 | S08 | W52 | 08 | 22.1 | | B | DAO | 130 | 11 | 6 | 2 |
| 9587 | | SVTO | 08 | 26 | 0720 | S09 | W57 | 08 | 22.0 | | B | DAO | 260 | 13 | 7 | 3 |
| 9587 | | KAND | 08 | 26 | 0950 | S09 | W58 | 08 | 22.0 | | | DAO | | 10 | 8 | 5 |
| 9587 | | RAMY | 08 | 26 | 1140 | S12 | W57 | 08 | 22.2 | | B | DAO | 210 | 9 | 6 | 3 |
| 9587 | 30668 | MWIL | 08 | 26 | 1445 | S08 | W60 | 08 | 22.1 | 5 | (B ) | | | | | |
| 9587 | | HOLL | 08 | 26 | 1510 | S09 | W61 | 08 | 22.0 | | B | DAO | 220 | 13 | 7 | 3 |
| 9587 | | VORO | 08 | 26 | 2235 | S09 | W65 | 08 | 22.1 | | | DAO | 403 | 2 | 4 | 2 |
| 9587 | | VORO | 08 | 26 | 2235 | S09 | W65 | 08 | 22.1 | | | DAO | 403 | 2 | 4 | 2 |
| 9587 | | LEAR | 08 | 27 | 0202 | S09 | W65 | 08 | 22.2 | | B | DAO | 260 | 10 | 7 | 2 |
| 9587 | | TACH | 08 | 27 | 0506 | S08 | W68 | 08 | 22.1 | | | DSO | 330 | 2 | 5 | 3 |
| 9587 | | SVTO | 08 | 27 | 0625 | S09 | W70 | 08 | 22.0 | | B | DAO | 290 | 8 | 9 | 3 |
| 9587 | | KAND | 08 | 27 | 0740 | S08 | W70 | 08 | 22.1 | | | DAO | | 8 | 10 | 5 |
| 9587 | | RAMY | 08 | 27 | 1205 | S11 | W69 | 08 | 22.3 | | B | DSI | 270 | 7 | 9 | 4 |
| 9587 | 30668 | MWIL | 08 | 27 | 1415 | S08 | W73 | 08 | 22.1 | 5 | (B ) | | | | | |
| 9587 | | HOLL | 08 | 27 | 1705 | S08 | W77 | 08 | 21.9 | | B | DAO | 300 | 5 | 9 | 3 |
| 9587 | | LEAR | 08 | 28 | 0030 | S08 | W78 | 08 | 22.2 | | B | DAO | 250 | 8 | 8 | 3 |
| 9587 | | VORO | 08 | 28 | 0208 | S10 | W78 | 08 | 22.2 | | | HRX | 77 | 1 | | 3 |
| 9587 | | SVTO | 08 | 28 | 0545 | S09 | W82 | 08 | 22.1 | | B | DAO | 30 | 4 | 8 | 3 |
| 9587 | | KAND | 08 | 28 | 0615 | S10 | W80 | 08 | 22.2 | | | CRI | | 5 | 4 | 5 |
| 9587 | | RAMY | 08 | 28 | 1205 | S13 | W82 | 08 | 22.3 | | A | HSX | 20 | 1 | 1 | 3 |
| 9587 | 30668 | MWIL | 08 | 28 | 1445 | S08 | W86 | 08 | 22.2 | 4 | (AF) | | | | | |
| 9598 | | LEAR | 08 | 17 | 0200 | S13 | E68 | 08 | 22.2 | | A | AXX | | 1 | 1 | 4 |
| 9598 | | KAND | 08 | 27 | 0740 | S17 | W67 | 08 | 22.2 | | | BXO | | 4 | 5 | 5 |
| 9598 | | RAMY | 08 | 27 | 1205 | S18 | W67 | 08 | 22.4 | | A | HSX | 30 | 1 | 1 | 4 |
| 9598 | 30675 | MWIL | 08 | 27 | 1415 | S16 | W70 | 08 | 22.3 | 4 | (BP) | | | | | |
| 9598 | | HOLL | 08 | 27 | 1705 | S13 | W75 | 08 | 22.0 | | A | AXX | 30 | 2 | 2 | 3 |
| 9598 | | LEAR | 08 | 28 | 0030 | S15 | W75 | 08 | 22.3 | | A | ARX | 30 | 2 | 1 | 3 |
| 9598 | | VORO | 08 | 28 | 0208 | S16 | W76 | 08 | 22.3 | | | HRX | 39 | 1 | | 3 |
| 9598 | | SVTO | 08 | 28 | 0545 | S17 | W88 | 08 | 21.5 | | A | HAX | 30 | 1 | 1 | 3 |
| 9585 | | RAMY | 08 | 16 | 1222 | N15 | E80 | 08 | 22.6 | | B | BXO | 40 | 2 | 3 | 3 |
| 9585 | 30656 | MWIL | 08 | 16 | 1430 | N14 | E77 | 08 | 22.4 | 3 | (AP) | | | | | |
| 9585 | | HOLL | 08 | 16 | 1448 | N15 | E79 | 08 | 22.6 | | B | BXO | 10 | 2 | 2 | 2 |
| 9585 | | LEAR | 08 | 17 | 0200 | N13 | E75 | 08 | 22.7 | | B | CSO | 30 | 3 | 8 | 4 |
| 9585 | | SVTO | 08 | 17 | 0638 | N16 | E73 | 08 | 22.8 | | B | CRO | 50 | 6 | 8 | 3 |
| 9585 | | KAND | 08 | 17 | 0910 | N14 | E68 | 08 | 22.5 | | | BXO | | 5 | 8 | 3 |
| 9585 | | RAMY | 08 | 17 | 1239 | N16 | E66 | 08 | 22.5 | | B | DSO | 60 | 4 | 6 | 2 |
| 9585 | | HOLL | 08 | 17 | 1404 | N15 | E68 | 08 | 22.7 | | B | DAO | 110 | 12 | 10 | 4 |
| 9585 | 30656 | MWIL | 08 | 17 | 1500 | N15 | E68 | 08 | 22.8 | 4 | (BG) | | | | | |
| 9585 | | LEAR | 08 | 18 | 0320 | N14 | E59 | 08 | 22.6 | | BG | DKI | 210 | 18 | 9 | 4 |
| 9585 | | TACH | 08 | 18 | 0552 | N15 | E59 | 08 | 22.7 | | | CAI | 298 | 6 | 5 | 3 |
| 9585 | | KAND | 08 | 18 | 0705 | N14 | E59 | 08 | 22.7 | | | CAI | | 11 | 7 | 3 |
| 9585 | | SVTO | 08 | 18 | 0800 | N15 | E60 | 08 | 22.9 | | BG | DAI | 250 | 24 | 9 | 3 |
| 9585 | | RAMY | 08 | 18 | 1208 | N16 | E55 | 08 | 22.7 | | B | D O | 240 | 8 | 8 | 2 |
| 9585 | 30656 | MWIL | 08 | 18 | 1500 | N14 | E55 | 08 | 22.8 | 5 | (B ) | | | | | |
| 9585 | | LEAR | 08 | 19 | 0015 | N13 | E50 | 08 | 22.8 | | BG | DKI | 290 | 19 | 8 | 4 |
| 9585 | | VORO | 08 | 19 | 0048 | N14 | E49 | 08 | 22.7 | | | DAI | 296 | 12 | 6 | 3 |
| 9585 | | TACH | 08 | 19 | 0550 | N15 | E47 | 08 | 22.8 | | | CAI | 218 | 4 | 7 | 4 |
| 9585 | | SVTO | 08 | 19 | 0555 | N16 | E45 | 08 | 22.6 | | B | EAI | 360 | 21 | 11 | 3 |
| 9585 | | RAMY | 08 | 19 | 1410 | N16 | E41 | 08 | 22.7 | | BG | DSO | 200 | 8 | 8 | 1 |

# S U N S P O T  G R O U P S
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9585 | | HOLL | 08 | 19 | 1420 | N16 | E42 | 08 | 22.8 | | BG | DAO | 190 | 28 | 10 | 4 |
| 9585 | 30656 | MWIL | 08 | 19 | 1800 | N14 | E39 | 08 | 22.7 | 5 | (B ) | | | | | |
| 9585 | | LEAR | 08 | 20 | 0040 | N14 | E34 | 08 | 22.6 | | B | DKO | 300 | 30 | 10 | 3 |
| 9585 | | VORO | 08 | 20 | 0406 | N15 | E34 | 08 | 22.7 | | | DAI | 405 | 9 | 7 | 2 |
| 9585 | | SVTO | 08 | 20 | 0548 | N15 | E32 | 08 | 22.7 | | B | EAO | 230 | 18 | 11 | 3 |
| 9585 | | TACH | 08 | 20 | 0550 | N15 | E32 | 08 | 22.7 | | | CAI | 469 | 18 | 6 | 3 |
| 9585 | | RAMY | 08 | 20 | 1208 | N16 | E29 | 08 | 22.7 | | B | D I | 200 | 17 | 8 | 2 |
| 9585 | | HOLL | 08 | 20 | 1438 | N15 | E27 | 08 | 22.6 | | B | DAI | 300 | 38 | 10 | 3 |
| 9585 | 30656 | MWIL | 08 | 20 | 1500 | N15 | E28 | 08 | 22.7 | 5 | (BG) | | | | | |
| 9585 | | LEAR | 08 | 21 | 0030 | N14 | E23 | 08 | 22.7 | | B | DKO | 250 | 25 | 10 | 2 |
| 9585 | | TACH | 08 | 21 | 0604 | N14 | E19 | 08 | 22.7 | | | CAI | 514 | 23 | 7 | 3 |
| 9585 | | SVTO | 08 | 21 | 0614 | N16 | E20 | 08 | 22.8 | | B | EKO | 280 | 28 | 11 | 3 |
| 9585 | | KAND | 08 | 21 | 0805 | N14 | E19 | 08 | 22.8 | | | DKI | | 41 | 8 | 3 |
| 9585 | | RAMY | 08 | 21 | 1206 | N16 | E16 | 08 | 22.7 | | B | DAC | 290 | 27 | 10 | 2 |
| 9585 | 30656 | MWIL | 08 | 21 | 1500 | N15 | E14 | 08 | 22.7 | 5 | (BP) | | | | | |
| 9585 | | VORO | 08 | 21 | 2331 | N15 | E10 | 08 | 22.7 | | | DAI | 400 | 15 | 7 | 3 |
| 9585 | | LEAR | 08 | 22 | 0020 | N14 | E08 | 08 | 22.6 | | B | EKO | 290 | 36 | 12 | 5 |
| 9585 | | TACH | 08 | 22 | 0532 | N15 | E06 | 08 | 22.7 | | | CAI | 214 | 15 | 4 | 3 |
| 9585 | | SVTO | 08 | 22 | 0623 | N13 | E05 | 08 | 22.6 | | B | EKO | 310 | 38 | 13 | 2 |
| 9585 | | KAND | 08 | 22 | 0720 | N15 | E06 | 08 | 22.7 | | | DKO | | 45 | 10 | 4 |
| 9585 | | RAMY | 08 | 22 | 1140 | N14 | E03 | 08 | 22.7 | | B | EAC | 280 | 19 | 11 | 2 |
| 9585 | | HOLL | 08 | 22 | 1428 | N15 | E01 | 08 | 22.7 | | B | EKI | 280 | 41 | 12 | 3 |
| 9585 | 30656 | MWIL | 08 | 22 | 1500 | N15 | E02 | 08 | 22.8 | 5 | (B ) | | | | | |
| 9585 | | VORO | 08 | 22 | 2233 | N15 | W02 | 08 | 22.8 | | | DAI | 324 | 7 | 7 | 1 |
| 9585 | | LEAR | 08 | 23 | 0015 | N14 | W04 | 08 | 22.7 | | B | DAO | 260 | 31 | 8 | 2 |
| 9585 | | TACH | 08 | 23 | 0543 | N16 | W07 | 08 | 22.7 | | | DAI | 518 | 17 | 7 | 3 |
| 9585 | | SVTO | 08 | 23 | 0610 | N15 | W07 | 08 | 22.7 | | B | EAI | 210 | 44 | 13 | 2 |
| 9585 | | KAND | 08 | 23 | 0710 | N15 | W07 | 08 | 22.8 | | | DKO | | 18 | 7 | 3 |
| 9585 | | HOLL | 08 | 23 | 1430 | N14 | W12 | 08 | 22.7 | | B | DKI | 260 | 43 | 8 | 4 |
| 9585 | 30665 | MWIL | 08 | 23 | 1500 | N10 | W09 | 08 | 22.9 | 3 | (B ) | | | | | |
| 9585 | 30656 | MWIL | 08 | 23 | 1500 | N15 | W12 | 08 | 22.7 | 5 | (B ) | | | | | |
| 9585 | | RAMY | 08 | 23 | 1622 | N13 | W11 | 08 | 22.8 | | B | DAO | 200 | 28 | 7 | 2 |
| 9585 | | VORO | 08 | 23 | 2129 | N09 | W12 | 08 | 23.0 | | | AXX | 3 | 1 | | 3 |
| 9585 | | VORO | 08 | 23 | 2129 | N09 | W12 | 08 | 23.0 | | | AXX | 3 | 1 | | 3 |
| 9585 | | VORO | 08 | 23 | 2129 | N15 | W15 | 08 | 22.7 | | | DSI | 350 | 8 | 6 | 3 |
| 9585 | | LEAR | 08 | 24 | 0220 | N13 | W18 | 08 | 22.7 | | B | DAO | 200 | 24 | 9 | 2 |
| 9585 | | SVTO | 08 | 24 | 0610 | N13 | W21 | 08 | 22.7 | | B | ESO | 240 | 28 | 13 | 3 |
| 9585 | | TACH | 08 | 24 | 0638 | N10 | W19 | 08 | 22.8 | | | BRI | 10 | 5 | 3 | 3 |
| 9585 | | TACH | 08 | 24 | 0638 | N16 | W18 | 08 | 22.9 | | | CAI | 238 | 20 | 10 | 3 |
| 9585 | | KAND | 08 | 24 | 0840 | N09 | W19 | 08 | 22.9 | | | AX | | 2 | 2 | 5 |
| 9585 | | KAND | 08 | 24 | 0840 | N15 | W22 | 08 | 22.7 | | | DAO | | 17 | 9 | 5 |
| 9585 | | RAMY | 08 | 24 | 1220 | N13 | W21 | 08 | 22.9 | | B | EAO | 150 | 26 | 12 | 3 |
| 9585 | | HOLL | 08 | 24 | 1430 | N13 | W26 | 08 | 22.6 | | B | DAO | 140 | 21 | 9 | 3 |
| 9585 | 30665 | MWIL | 08 | 24 | 1445 | N10 | W23 | 08 | 22.9 | 4 | (B ) | | | | | |
| 9585 | 30656 | MWIL | 08 | 24 | 1445 | N15 | W25 | 08 | 22.7 | 5 | (B ) | | | | | |
| 9585 | | VORO | 08 | 25 | 0112 | N15 | W31 | 08 | 22.7 | | | DAI | 219 | 5 | 4 | 2 |
| 9585 | | LEAR | 08 | 25 | 0149 | N13 | W31 | 08 | 22.7 | | B | DAO | 190 | 21 | 10 | 2 |
| 9585 | | SVTO | 08 | 25 | 0607 | N14 | W34 | 08 | 22.7 | | B | EAO | 120 | 18 | 12 | 2 |
| 9585 | | KAND | 08 | 25 | 0900 | N15 | W36 | 08 | 22.6 | | | CAO | | 18 | 10 | 4 |
| 9585 | | RAMY | 08 | 25 | 1200 | N12 | W38 | 08 | 22.6 | | B | EAI | 80 | 16 | 11 | 3 |
| 9585 | 30665 | MWIL | 08 | 25 | 1445 | N10 | W35 | 08 | 23.0 | 3 | (AF) | | | | | |
| 9585 | 30656 | MWIL | 08 | 25 | 1445 | N15 | W38 | 08 | 22.7 | 5 | (BP) | | | | | |
| 9585 | | HOLL | 08 | 25 | 1725 | N13 | W42 | 08 | 22.5 | | B | EAI | 100 | 14 | 11 | 4 |
| 9585 | | VORO | 08 | 25 | 2201 | N15 | W44 | 08 | 22.6 | | | HRX | 98 | 4 | | 2 |
| 9585 | | LEAR | 08 | 26 | 0115 | N14 | W44 | 08 | 22.7 | | B | DAO | 70 | 10 | 7 | 2 |
| 9585 | | SVTO | 08 | 26 | 0720 | N12 | W51 | 08 | 22.5 | | B | DAO | 60 | 9 | 5 | 3 |
| 9585 | | KAND | 08 | 26 | 0950 | N12 | W51 | 08 | 22.6 | | | CSO | | 10 | 4 | 5 |
| 9585 | | RAMY | 08 | 26 | 1140 | N10 | W52 | 08 | 22.6 | | B | DSO | 40 | 5 | 4 | 3 |
| 9585 | 30656 | MWIL | 08 | 26 | 1445 | N14 | W54 | 08 | 22.5 | 5 | (BP) | | | | | |
| 9585 | | HOLL | 08 | 26 | 1510 | N14 | W55 | 08 | 22.5 | | B | DAO | 40 | 5 | 6 | 3 |
| 9585 | | VORO | 08 | 26 | 2235 | N15 | W57 | 08 | 22.6 | | | HRX | 52 | 2 | | 2 |
| 9585 | | LEAR | 08 | 27 | 0202 | N13 | W62 | 08 | 22.4 | | B | DSO | 50 | 4 | 2 | 2 |
| 9585 | | TACH | 08 | 27 | 0506 | N15 | W60 | 08 | 22.7 | | | HR | 70 | 2 | 2 | 3 |
| 9585 | | SVTO | 08 | 27 | 0625 | N13 | W62 | 08 | 22.6 | | B | DSO | 80 | 11 | 10 | 3 |
| 9585 | | KAND | 08 | 27 | 0740 | N14 | W60 | 08 | 22.8 | | | CSO | | 3 | 6 | 5 |
| 9585 | | RAMY | 08 | 27 | 1205 | N11 | W63 | 08 | 22.8 | | B | DAO | 40 | 3 | 5 | 4 |
| 9585 | 30656 | MWIL | 08 | 27 | 1415 | N14 | W65 | 08 | 22.7 | 4 | (B ) | | | | | |
| 9585 | | HOLL | 08 | 27 | 1705 | N15 | W69 | 08 | 22.5 | | B | DSO | 50 | 3 | 5 | 3 |
| 9585 | | LEAR | 08 | 28 | 0030 | N14 | W72 | 08 | 22.6 | | B | DSO | 40 | 2 | 2 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9585 | | VORO | 08 | 28 | 0208 | N14 | W72 | 08 | 22.6 | | | AXX | 23 | 1 | | 3 |
| 9585 | | SVTO | 08 | 28 | 0545 | N13 | W76 | 08 | 22.5 | | B | CRO | 30 | 2 | 2 | 3 |
| 9585 | | KAND | 08 | 28 | 0615 | N13 | W75 | 08 | 22.6 | | | BXO | | 3 | 1 | 5 |
| 9585 | | RAMY | 08 | 28 | 1205 | N10 | W78 | 08 | 22.6 | | A | HSX | 10 | 1 | 1 | 3 |
| 9585 | 30656 | MWIL | 08 | 28 | 1445 | N15 | W78 | 08 | 22.7 | 4 | AP | | | | | |
| 9585A | 30664 | MWIL | 08 | 22 | 1500 | N21 | E03 | 08 | 22.8 | 3 | (AF) | | | | | |
| 9585B | | KAND | 08 | 26 | 0950 | S30 | W38 | 08 | 23.4 | | | BXO | | 4 | 4 | 5 |
| 9585B | 30672 | MWIL | 08 | 26 | 1445 | S28 | W41 | 08 | 23.4 | 4 | (BP) | | | | | |
| 9585C | | VORO | 08 | 28 | 0208 | S15 | W61 | 08 | 23.5 | | | AXX | 17 | 1 | | 3 |
| 9593B | | VORO | 08 | 23 | 2129 | N29 | E02 | 08 | 24.0 | | | AXX | 3 | 1 | | 3 |
| 9593B | | VORO | 08 | 23 | 2129 | N29 | E02 | 08 | 24.0 | | | AXX | 3 | 1 | | 3 |
| 9593 | | HOLL | 08 | 23 | 1430 | N00 | E06 | 08 | 24.0 | | A | AXX | 10 | 2 | 2 | 4 |
| 9593 | 30666 | MWIL | 08 | 23 | 1500 | N00 | E05 | 08 | 24.0 | 4 | (B ) | | | | | |
| 9593 | | RAMY | 08 | 23 | 1622 | N00 | E05 | 08 | 24.0 | | B | CRO | 10 | 4 | 2 | 2 |
| 9593 | | KAND | 08 | 24 | 0840 | S00 | W04 | 08 | 24.1 | | | BXO | | 2 | 2 | 5 |
| 9593 | | RAMY | 08 | 24 | 1220 | N00 | W06 | 08 | 24.1 | | A | AXX | | 1 | | 3 |
| 9593 | 30666 | MWIL | 08 | 24 | 1445 | N00 | W07 | 08 | 24.1 | 3 | (AP) | | | | | |
| 9594A | | KAND | 08 | 27 | 0740 | S32 | W28 | 08 | 25.1 | | | BXO | | 2 | 3 | 5 |
| 9593A | 30660 | MWIL | 08 | 20 | 1500 | S06 | E66 | 08 | 25.6 | 3 | (AF) | | | | | |
| 9593A | 30660 | MWIL | 08 | 21 | 1500 | S06 | E49 | 08 | 25.3 | 3 | (AP) | | | | | |
| 9593A | 30679 | MWIL | 08 | 29 | 1445 | S07 | W62 | 08 | 25.0 | 4 | (AP) | | | | | |
| 9593A | 30679 | MWIL | 08 | 30 | 1500 | S08 | W77 | 08 | 24.8 | 3 | (AP) | | | | | |
| 9594 | | SVTO | 08 | 24 | 0610 | N38 | E15 | 08 | 25.5 | | B | CRO | 10 | 3 | 4 | 3 |
| 9594 | | TACH | 08 | 24 | 0638 | N39 | E13 | 08 | 25.3 | | | AR | 8 | 4 | 2 | 3 |
| 9594 | | KAND | 08 | 24 | 0840 | N39 | E14 | 08 | 25.5 | | | BXO | | 2 | 2 | 5 |
| 9594 | | RAMY | 08 | 24 | 1220 | N38 | E10 | 08 | 25.3 | | B | CSO | 10 | 3 | 4 | 3 |
| 9594 | | HOLL | 08 | 24 | 1430 | N36 | E09 | 08 | 25.3 | | B | BXO | 10 | 3 | 4 | 3 |
| 9594 | 30669 | MWIL | 08 | 24 | 1445 | N38 | E10 | 08 | 25.4 | 4 | (B ) | | | | | |
| 9594 | | LEAR | 08 | 25 | 0149 | N38 | E03 | 08 | 25.3 | | B | BXO | 10 | 2 | 2 | 2 |
| 9594 | | KAND | 08 | 25 | 0900 | N38 | E00 | 08 | 25.4 | | | BXO | | 2 | 2 | 4 |
| 9594 | | RAMY | 08 | 25 | 1200 | N36 | W05 | 08 | 25.1 | | A | AXX | | 1 | | 3 |
| 9594 | 30669 | MWIL | 08 | 26 | 1445 | N38 | W15 | 08 | 25.4 | 4 | (B ) | | | | | |
| 9595 | | LEAR | 08 | 24 | 0220 | N16 | E38 | 08 | 27.0 | | A | ARX | 10 | 1 | 1 | 2 |
| 9595 | | SVTO | 08 | 24 | 0610 | N17 | E36 | 08 | 27.0 | | A | HRX | 10 | 1 | | 3 |
| 9595 | | TACH | 08 | 24 | 0638 | N16 | E34 | 08 | 26.8 | | | AR | 21 | 2 | 1 | 3 |
| 9595 | | KAND | 08 | 24 | 0840 | N17 | E34 | 08 | 26.9 | | | BXO | | 4 | 2 | 5 |
| 9595 | | HOLL | 08 | 24 | 1430 | N15 | E31 | 08 | 26.9 | | A | AXX | 10 | 2 | 1 | 3 |
| 9595 | 30670 | MWIL | 08 | 24 | 1445 | N18 | E31 | 08 | 27.0 | 3 | (B ) | | | | | |
| 9595 | | SVTO | 08 | 28 | 0545 | N15 | W21 | 08 | 26.6 | | B | AXX | 10 | 2 | 1 | 3 |
| 9595 | | SVTO | 08 | 31 | 0746 | N17 | W62 | 08 | 26.6 | | B | CRO | 30 | 3 | 3 | 3 |
| 9595 | | KAND | 08 | 31 | 0755 | N18 | W63 | 08 | 26.5 | | | AX | | 3 | 1 | 5 |
| 9595 | 30683 | MWIL | 08 | 31 | 1500 | N17 | W65 | 08 | 26.7 | 4 | (B ) | | | | | |
| 9590 | | HOLL | 08 | 20 | 1438 | S27 | E85 | 08 | 27.2 | | A | HSX | 150 | 1 | 2 | 3 |
| 9590 | 30661 | MWIL | 08 | 20 | 1500 | S29 | E80 | 08 | 26.9 | 4 | AP | | | | | |
| 9590 | | LEAR | 08 | 21 | 0030 | S29 | E74 | 08 | 26.8 | | A | HAX | 60 | 1 | 2 | 2 |
| 9590 | | TACH | 08 | 21 | 0604 | S28 | E70 | 08 | 26.7 | | | HSX | 180 | 1 | 5 | 3 |
| 9590 | | SVTO | 08 | 21 | 0614 | S28 | E73 | 08 | 27.0 | | A | HKX | 360 | 1 | 5 | 3 |
| 9590 | | KAND | 08 | 21 | 0805 | S29 | E71 | 08 | 26.9 | | | HS | | 1 | 4 | 4 |
| 9590 | | KAND | 08 | 21 | 0805 | S29 | E71 | 08 | 26.9 | | | HS | | 1 | 4 | 4 |
| 9590 | | RAMY | 08 | 21 | 1206 | S27 | E71 | 08 | 27.0 | | A | HAX | 120 | 1 | 3 | 2 |
| 9590 | 30661 | MWIL | 08 | 21 | 1500 | S28 | E67 | 08 | 26.9 | 4 | AP | | | | | |
| 9590 | | VORO | 08 | 21 | 2331 | S29 | E64 | 08 | 27.0 | | | HAX | 167 | 1 | | 3 |
| 9590 | | LEAR | 08 | 22 | 0020 | S29 | E61 | 08 | 26.8 | | A | HKX | 190 | 1 | 4 | 5 |
| 9590 | | TACH | 08 | 22 | 0532 | S28 | E57 | 08 | 26.7 | | | HA | 185 | 2 | 2 | 3 |
| 9590 | | SVTO | 08 | 22 | 0623 | S28 | E59 | 08 | 26.9 | | B | DAO | 290 | 3 | 4 | 2 |
| 9590 | | KAND | 08 | 22 | 0720 | S30 | E60 | 08 | 27.0 | | | HA | | 3 | 4 | 4 |
| 9590 | | KAND | 08 | 22 | 0720 | S30 | E60 | 08 | 27.0 | | | HA | | 3 | 4 | 4 |
| 9590 | | RAMY | 08 | 22 | 1140 | S26 | E58 | 08 | 27.0 | | A | HSX | 170 | 1 | 2 | 2 |
| 9590 | | HOLL | 08 | 22 | 1428 | S27 | E55 | 08 | 26.9 | | A | HKX | 230 | 4 | 4 | 3 |

# S U N S P O T  G R O U P S
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Time Mo | Day | (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9590 | 30661 | MWIL | 08 | 22 | 1500 | S29 | E55 | 08 | 26.9 | 5 | (AP) | | | | | |
| 9590 | | VORO | 08 | 22 | 2233 | S29 | E51 | 08 | 26.9 | | | HAX | 323 | 1 | | 1 |
| 9590 | | LEAR | 08 | 23 | 0015 | S29 | E48 | 08 | 26.8 | | A | HSX | 180 | 2 | 3 | 2 |
| 9590 | | TACH | 08 | 23 | 0543 | S29 | E47 | 08 | 26.9 | | | HA | 185 | 3 | 3 | 3 |
| 9590 | | SVTO | 08 | 23 | 0610 | S28 | E48 | 08 | 27.0 | | B | CKO | 220 | 4 | 4 | 2 |
| 9590 | | KAND | 08 | 23 | 0710 | S30 | E46 | 08 | 26.9 | | | HK | | 3 | 4 | 5 |
| 9590 | | KAND | 08 | 23 | 0710 | S30 | E46 | 08 | 26.9 | | | HK | | 3 | 4 | 5 |
| 9590 | | HOLL | 08 | 23 | 1430 | S29 | E42 | 08 | 26.9 | | A | HAX | 210 | 5 | 3 | 4 |
| 9590 | 30661 | MWIL | 08 | 23 | 1500 | S29 | E41 | 08 | 26.8 | 4 | (BP) | | | | | |
| 9590 | | RAMY | 08 | 23 | 1622 | S27 | E42 | 08 | 26.9 | | B | CAO | 120 | 3 | 4 | 2 |
| 9590 | | VORO | 08 | 23 | 2129 | S29 | E38 | 08 | 26.9 | | | HAX | 239 | 2 | | 3 |
| 9590 | | LEAR | 08 | 24 | 0220 | S29 | E35 | 08 | 26.8 | | A | HSX | 180 | 2 | 2 | 2 |
| 9590 | | SVTO | 08 | 24 | 0610 | S29 | E35 | 08 | 27.0 | | A | HSX | 240 | 2 | 4 | 3 |
| 9590 | | TACH | 08 | 24 | 0638 | S28 | E31 | 08 | 26.7 | | | HA | 300 | 2 | 1 | 3 |
| 9590 | | KAND | 08 | 24 | 0840 | S29 | E30 | 08 | 26.7 | | | HA | | 2 | 2 | 5 |
| 9590 | | KAND | 08 | 24 | 0840 | S29 | E30 | 08 | 26.7 | | | HA | | 2 | 2 | 5 |
| 9590 | | RAMY | 08 | 24 | 1220 | S27 | E30 | 08 | 26.8 | | A | HSX | 210 | 2 | 3 | 3 |
| 9590 | | HOLL | 08 | 24 | 1430 | S29 | E29 | 08 | 26.9 | | A | HAX | 210 | 2 | 2 | 3 |
| 9590 | 30661 | MWIL | 08 | 24 | 1445 | S28 | E28 | 08 | 26.8 | 5 | (BP) | | | | | |
| 9590 | | VORO | 08 | 25 | 0112 | S28 | E23 | 08 | 26.8 | | | HAX | 209 | 2 | | 2 |
| 9590 | | LEAR | 08 | 25 | 0149 | S29 | E21 | 08 | 26.7 | | A | HSX | 140 | 2 | 2 | 2 |
| 9590 | | SVTO | 08 | 25 | 0607 | S28 | E23 | 08 | 27.0 | | B | CSO | 140 | 4 | 5 | 2 |
| 9590 | | KAND | 08 | 25 | 0900 | S29 | E18 | 08 | 26.8 | | | HA | | 6 | 6 | 4 |
| 9590 | | KAND | 08 | 25 | 0900 | S29 | E18 | 08 | 26.8 | | | HA | | 6 | 6 | 4 |
| 9590 | | RAMY | 08 | 25 | 1200 | S28 | E18 | 08 | 26.9 | | A | HAX | 220 | 2 | 3 | 3 |
| 9590 | 30661 | MWIL | 08 | 25 | 1445 | S28 | E15 | 08 | 26.8 | 5 | (AP) | | | | | |
| 9590 | | HOLL | 08 | 25 | 1725 | S29 | E15 | 08 | 26.9 | | A | HAX | 180 | 4 | 3 | 4 |
| 9590 | | VORO | 08 | 25 | 2201 | S27 | E15 | 08 | 27.1 | | | HSX | 285 | 2 | | 2 |
| 9590 | | LEAR | 08 | 26 | 0115 | S29 | E09 | 08 | 26.7 | | A | HAX | 180 | 2 | 2 | 2 |
| 9590 | | SVTO | 08 | 26 | 0720 | S29 | E07 | 08 | 26.8 | | A | HAX | 180 | 4 | 3 | 3 |
| 9590 | | KAND | 08 | 26 | 0950 | S28 | E06 | 08 | 26.9 | | | HA | | 6 | 5 | 5 |
| 9590 | | KAND | 08 | 26 | 0950 | S28 | E06 | 08 | 26.9 | | | HA | | 6 | 5 | 5 |
| 9590 | | RAMY | 08 | 26 | 1140 | S29 | E06 | 08 | 26.9 | | A | HAX | 170 | 2 | 2 | 3 |
| 9590 | 30661 | MWIL | 08 | 26 | 1445 | S28 | E02 | 08 | 26.8 | 5 | (AP) | | | | | |
| 9590 | | HOLL | 08 | 26 | 1510 | S29 | E02 | 08 | 26.8 | | A | HAX | 180 | 4 | 3 | 3 |
| 9590 | | VORO | 08 | 26 | 2235 | S29 | W02 | 08 | 26.8 | | | HSX | 237 | 2 | | 2 |
| 9590 | | LEAR | 08 | 27 | 0202 | S29 | W04 | 08 | 26.8 | | A | HAX | 120 | 5 | 2 | 2 |
| 9590 | | TACH | 08 | 27 | 0506 | S27 | W06 | 08 | 26.7 | | | HA | 210 | 2 | 2 | 3 |
| 9590 | | SVTO | 08 | 27 | 0625 | S29 | W06 | 08 | 26.8 | | A | HSX | 180 | 2 | 3 | 3 |
| 9590 | | KAND | 08 | 27 | 0740 | S29 | W07 | 08 | 26.8 | | | HA | | 3 | 3 | 5 |
| 9590 | | KAND | 08 | 27 | 0740 | S29 | W07 | 08 | 26.8 | | | HA | | 3 | 3 | 5 |
| 9590 | | RAMY | 08 | 27 | 1205 | S29 | W07 | 08 | 26.9 | | B | CSO | 180 | 3 | 3 | 4 |
| 9590 | 30661 | MWIL | 08 | 27 | 1415 | S28 | W11 | 08 | 26.7 | 5 | (AP) | | | | | |
| 9590 | | HOLL | 08 | 27 | 1705 | S28 | W12 | 08 | 26.8 | | A | HAX | 150 | 4 | 4 | 3 |
| 9590 | | LEAR | 08 | 28 | 0030 | S28 | W16 | 08 | 26.8 | | A | HSX | 160 | 4 | 4 | 3 |
| 9590 | | VORO | 08 | 28 | 0208 | S29 | W17 | 08 | 26.7 | | | HSX | 249 | 2 | | 3 |
| 9590 | | SVTO | 08 | 28 | 0545 | S29 | W18 | 08 | 26.8 | | B | CAO | 160 | 2 | 4 | 3 |
| 9590 | | KAND | 08 | 28 | 0615 | S29 | W19 | 08 | 26.8 | | | HA | | 3 | 3 | 5 |
| 9590 | | KAND | 08 | 28 | 0615 | S29 | W19 | 08 | 26.8 | | | HA | | 3 | 3 | 5 |
| 9590 | | RAMY | 08 | 28 | 1205 | S30 | W20 | 08 | 26.9 | | A | HSX | 160 | 2 | 2 | 3 |
| 9590 | 30661 | MWIL | 08 | 28 | 1445 | S28 | W23 | 08 | 26.8 | 5 | (BG) | | | | | |
| 9590 | | HOLL | 08 | 28 | 1512 | S28 | W24 | 08 | 26.7 | | A | HSX | 80 | 3 | 2 | 2 |
| 9590 | | VORO | 08 | 28 | 2137 | S29 | W27 | 08 | 26.8 | | | HSX | 251 | 1 | | 3 |
| 9590 | | LEAR | 08 | 29 | 0350 | S28 | W32 | 08 | 26.6 | | A | HHX | 160 | 2 | 3 | 2 |
| 9590 | | SVTO | 08 | 29 | 0608 | S29 | W32 | 08 | 26.7 | | A | HSX | 140 | 2 | 4 | 2 |
| 9590 | | KAND | 08 | 29 | 0720 | S28 | W34 | 08 | 26.6 | | | HS | | 1 | 3 | 3 |
| 9590 | | KAND | 08 | 29 | 0720 | S28 | W34 | 08 | 26.6 | | | HS | | 1 | 3 | 3 |
| 9590 | | RAMY | 08 | 29 | 1217 | S30 | W33 | 08 | 26.9 | | A | HSX | 150 | 1 | 3 | 4 |
| 9590 | 30661 | MWIL | 08 | 29 | 1445 | S28 | W37 | 08 | 26.7 | 5 | (AP) | | | | | |
| 9590 | | HOLL | 08 | 29 | 1800 | S30 | W45 | 08 | 26.2 | | A | HAX | 160 | 3 | 2 | 3 |
| 9590 | | VORO | 08 | 29 | 2211 | S29 | W41 | 08 | 26.7 | | | HKX | 311 | 1 | | 2 |
| 9590 | | LEAR | 08 | 30 | 0120 | S28 | W44 | 08 | 26.6 | | A | HAX | 130 | 2 | 2 | 2 |
| 9590 | | SVTO | 08 | 30 | 0735 | S29 | W46 | 08 | 26.7 | | A | HSX | 140 | 2 | 4 | 2 |
| 9590 | | KAND | 08 | 30 | 1020 | S28 | W49 | 08 | 26.6 | | | HA | | 3 | 4 | 4 |
| 9590 | | KAND | 08 | 30 | 1020 | S28 | W49 | 08 | 26.6 | | | HA | | 3 | 4 | 4 |
| 9590 | | RAMY | 08 | 30 | 1215 | S31 | W46 | 08 | 26.9 | | A | HSX | 150 | 1 | 3 | 4 |
| 9590 | | HOLL | 08 | 30 | 1450 | S29 | W50 | 08 | 26.7 | | A | HAX | 110 | 2 | 3 | 4 |
| 9590 | 30661 | MWIL | 08 | 30 | 1500 | S28 | W50 | 08 | 26.7 | 5 | (AP) | | | | | |
| 9590 | | VORO | 08 | 30 | 2212 | S29 | W54 | 08 | 26.7 | | | HAX | 137 | 2 | | 2 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9590 | | LEAR | 08 | 31 | 0105 | S28 | W57 | 08 | 26.6 | | A | HAX | 200 | 4 | 3 | 1 |
| 9590 | | SVTO | 08 | 31 | 0746 | S28 | W60 | 08 | 26.6 | | A | HSX | 140 | 2 | 2 | 3 |
| 9590 | | KAND | 08 | 31 | 0755 | S28 | W62 | 08 | 26.5 | | | HA | | 3 | 3 | 5 |
| 9590 | | KAND | 08 | 31 | 0755 | S28 | W62 | 08 | 26.5 | | | HA | | 3 | 3 | 5 |
| 9590 | | RAMY | 08 | 31 | 1213 | S31 | W59 | 08 | 26.8 | | A | HAX | 120 | 2 | 3 | 3 |
| 9590 | 30661 | MWIL | 08 | 31 | 1500 | S28 | W63 | 08 | 26.7 | 5 | (AP) | | | | | |
| 9590 | | HOLL | 08 | 31 | 1537 | S28 | W65 | 08 | 26.6 | | A | HAX | 160 | 2 | 6 | 4 |
| 9590 | | VORO | 08 | 31 | 2153 | S29 | W68 | 08 | 26.6 | | | HRX | 146 | 2 | | 3 |
| 9590 | | LEAR | 09 | 01 | 0025 | S28 | W67 | 08 | 26.9 | | A | HAX | 60 | 1 | 2 | 3 |
| 9590 | | SVTO | 09 | 01 | 0547 | S29 | W70 | 08 | 26.8 | | A | HSX | 60 | 1 | 2 | 2 |
| 9590 | | KAND | 09 | 01 | 0650 | S28 | W74 | 08 | 26.6 | | | HA | | 1 | 2 | 4 |
| 9590 | | RAMY | 09 | 01 | 1235 | S31 | W75 | 08 | 26.7 | | A | HAX | 30 | 1 | 2 | 2 |
| 9590 | 30661 | MWIL | 09 | 01 | 1430 | S28 | W75 | 08 | 26.8 | 4 | AP | | | | | |
| 9590 | | HOLL | 09 | 01 | 1430 | S30 | W79 | 08 | 26.5 | | A | AXX | 30 | 1 | 1 | 4 |
| 9590A | | TACH | 08 | 22 | 0532 | S17 | E65 | 08 | 27.2 | | | AR | 30 | 2 | 1 | 3 |
| 9590A | 30667 | MWIL | 08 | 23 | 1500 | S20 | E45 | 08 | 27.1 | 3 | (AP) | | | | | |
| 9590A | | TACH | 08 | 24 | 0638 | S17 | E39 | 08 | 27.2 | | | BRI | 67 | 5 | 3 | 3 |
| 9591 | | SVTO | 08 | 21 | 0614 | S15 | E85 | 08 | 27.7 | | A | HAX | 60 | 1 | 6 | 3 |
| 9591 | | KAND | 08 | 21 | 0805 | S18 | E85 | 08 | 27.8 | | | HA | | 2 | 3 | 3 |
| 9591 | | KAND | 08 | 21 | 0805 | S18 | E85 | 08 | 27.8 | | | HA | | 2 | 3 | 3 |
| 9591 | | RAMY | 08 | 21 | 1206 | S14 | E85 | 08 | 27.9 | | A | HSX | 30 | 1 | 5 | 2 |
| 9591 | 30662 | MWIL | 08 | 21 | 1500 | S18 | E75 | 08 | 27.3 | 3 | (AP) | | | | | |
| 9591 | | VORO | 08 | 21 | 2331 | S17 | E72 | 08 | 27.4 | | | DAO | 181 | 2 | 7 | 3 |
| 9591 | | LEAR | 08 | 22 | 0020 | S18 | E72 | 08 | 27.5 | | B | DAO | 120 | 6 | 9 | 5 |
| 9591 | | TACH | 08 | 22 | 0532 | S17 | E70 | 08 | 27.6 | | | AR | 25 | 2 | 2 | 3 |
| 9591 | | SVTO | 08 | 22 | 0623 | S17 | E75 | 08 | 28.0 | | B | FKO | 390 | 5 | 16 | 2 |
| 9591 | | KAND | 08 | 22 | 0720 | S18 | E76 | 08 | 28.1 | | | FAI | | 9 | 18 | 4 |
| 9591 | | KAND | 08 | 22 | 0720 | S18 | E76 | 08 | 28.1 | | | FAI | | 9 | 18 | 4 |
| 9591 | | RAMY | 08 | 22 | 1140 | S14 | E74 | 08 | 28.1 | | B | FAO | 240 | 5 | 19 | 2 |
| 9591 | | HOLL | 08 | 22 | 1428 | S17 | E71 | 08 | 28.0 | | BG | FKI | 500 | 14 | 17 | 3 |
| 9591 | 30662 | MWIL | 08 | 22 | 1500 | S18 | E69 | 08 | 27.9 | 4 | (BF) | | | | | |
| 9591 | | VORO | 08 | 22 | 2233 | S17 | E61 | 08 | 27.6 | | | DRO | 73 | 2 | 6 | 1 |
| 9591 | | VORO | 08 | 22 | 2233 | S19 | E74 | 08 | 28.6 | | | HKX | 397 | 1 | | 1 |
| 9591 | | LEAR | 08 | 23 | 0015 | S18 | E63 | 08 | 27.8 | | BG | EKO | 480 | 10 | 13 | 2 |
| 9591 | | TACH | 08 | 23 | 0543 | S17 | E56 | 08 | 27.5 | | | HA | 148 | 4 | 3 | 3 |
| 9591 | | TACH | 08 | 23 | 0543 | S19 | E74 | 08 | 28.9 | | | DAI | 365 | 7 | 6 | 3 |
| 9591 | | SVTO | 08 | 23 | 0610 | S18 | E63 | 08 | 28.0 | | B | FKO | 530 | 24 | 18 | 2 |
| 9591 | | KAND | 08 | 23 | 0710 | S20 | E65 | 08 | 28.3 | | | FKO | | 14 | 19 | 3 |
| 9591 | | KAND | 08 | 23 | 0710 | S20 | E65 | 08 | 28.3 | | | FKO | | 14 | 19 | 3 |
| 9591 | | HOLL | 08 | 23 | 1430 | S18 | E58 | 08 | 28.0 | | BGD | FKC | 900 | 41 | 34 | 4 |
| 9591 | 30662 | MWIL | 08 | 23 | 1500 | S18 | E57 | 08 | 28.0 | 5 | (D ) | | | | | |
| 9591 | | RAMY | 08 | 23 | 1622 | S15 | E58 | 08 | 28.1 | | BGD | FKI | 820 | 23 | 28 | 2 |
| 9591 | | VORO | 08 | 23 | 2129 | S18 | E49 | 08 | 27.6 | | | CRO | 121 | 7 | 7 | 3 |
| 9591 | | VORO | 08 | 23 | 2129 | S20 | E61 | 08 | 28.6 | | | DAC | 629 | 7 | 3 | 3 |
| 9591 | | LEAR | 08 | 24 | 0220 | S19 | E55 | 08 | 28.3 | | BGD | FKI | 550 | 30 | 27 | 2 |
| 9591 | | SVTO | 08 | 24 | 0610 | S19 | E49 | 08 | 28.0 | | B | FKI | 610 | 19 | 21 | 3 |
| 9591 | | TACH | 08 | 24 | 0638 | S19 | E50 | 08 | 28.1 | | | DAI | 1014 | 17 | 9 | 3 |
| 9591 | | KAND | 08 | 24 | 0840 | S19 | E47 | 08 | 27.9 | | | EKC | | 21 | 14 | 5 |
| 9591 | | KAND | 08 | 24 | 0840 | S19 | E47 | 08 | 27.9 | | | EKC | | 21 | 14 | 5 |
| 9591 | | RAMY | 08 | 24 | 1220 | S15 | E48 | 08 | 28.1 | | BGD | FKI | 700 | 34 | 28 | 3 |
| 9591 | | HOLL | 08 | 24 | 1430 | S18 | E48 | 08 | 28.2 | | BGD | FKI | 700 | 43 | 29 | 3 |
| 9591 | 30662 | MWIL | 08 | 24 | 1445 | S19 | E46 | 08 | 28.1 | 5 | (D ) | | | | | |
| 9591 | | VORO | 08 | 25 | 0112 | S18 | E34 | 08 | 27.6 | | | CRO | 83 | 4 | 8 | 2 |
| 9591 | | VORO | 08 | 25 | 0112 | S19 | E46 | 08 | 28.6 | | | DAC | 475 | 7 | 3 | 2 |
| 9591 | | LEAR | 08 | 25 | 0149 | S19 | E40 | 08 | 28.1 | | BGD | FKI | 530 | 27 | 30 | 2 |
| 9591 | | SVTO | 08 | 25 | 0607 | S18 | E41 | 08 | 28.4 | | BGD | FKI | 700 | 25 | 32 | 2 |
| 9591 | | KAND | 08 | 25 | 0900 | S19 | E37 | 08 | 28.2 | | | FKI | | 29 | 19 | 4 |
| 9591 | | KAND | 08 | 25 | 0900 | S19 | E37 | 08 | 28.2 | | | FKI | | 29 | 19 | 4 |
| 9591 | | RAMY | 08 | 25 | 1200 | S17 | E40 | 08 | 28.5 | | BGD | FKI | 750 | 27 | 32 | 3 |
| 9591 | 30662 | MWIL | 08 | 25 | 1445 | S19 | E33 | 08 | 28.1 | 5 | (D ) | | | | | |
| 9591 | | HOLL | 08 | 25 | 1725 | S21 | E34 | 08 | 28.3 | | BGD | FKI | 860 | 43 | 33 | 4 |
| 9591 | | VORO | 08 | 25 | 2201 | S18 | E22 | 08 | 27.6 | | | CRI | 103 | 7 | 7 | 2 |
| 9591 | | LEAR | 08 | 26 | 0115 | S19 | E29 | 08 | 28.3 | | BGD | FKI | 710 | 24 | 29 | 2 |
| 9591 | | SVTO | 08 | 26 | 0720 | S18 | E28 | 08 | 28.4 | | BGD | FKI | 860 | 44 | 31 | 3 |
| 9591 | | KAND | 08 | 26 | 0950 | S18 | E23 | 08 | 28.2 | | | FKI | | 53 | 19 | 5 |
| 9591 | | KAND | 08 | 26 | 0950 | S18 | E23 | 08 | 28.2 | | | FKI | | 53 | 19 | 5 |
| 9591 | | RAMY | 08 | 26 | 1140 | S18 | E22 | 08 | 28.2 | | BGD | FKI | 640 | 26 | 20 | 3 |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo Day | Time (UT) | Lat | CMD | CMP Mo Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9591 | 30662 | MWIL | 08 26 | 1445 | S18 | E22 | 08 28.3 | 6 | (D ) | | | | | |
| 9591 | 30673 | MWIL | 08 26 | 1445 | S19 | E40 | 08 29.7 | 4 | (AF) | | | | | |
| 9591 | | HOLL | 08 26 | 1510 | S20 | E24 | 08 28.5 | | BGD | FKI | 740 | 70 | 31 | 3 |
| 9591 | | VORO | 08 26 | 2235 | S16 | E13 | 08 27.9 | | | CRI | 130 | 9 | 6 | 2 |
| 9591 | | LEAR | 08 27 | 0202 | S19 | E18 | 08 28.4 | | BGD | FKI | 800 | 32 | 29 | 2 |
| 9591 | | TACH | 08 27 | 0506 | S16 | E06 | 08 27.7 | | | AR | 22 | 5 | 2 | 3 |
| 9591 | | TACH | 08 27 | 0506 | S16 | E10 | 08 28.0 | | | CAI | 118 | 7 | 1 | 3 |
| 9591 | | TACH | 08 27 | 0506 | S17 | E16 | 08 28.4 | | | CAI | 1030 | 12 | 2 | 3 |
| 9591 | | SVTO | 08 27 | 0625 | S18 | E18 | 08 28.6 | | BGD | FKI | 710 | 51 | 27 | 3 |
| 9591 | | KAND | 08 27 | 0740 | S19 | E12 | 08 28.2 | | | FKC | | 40 | 16 | 5 |
| 9591 | | KAND | 08 27 | 0740 | S19 | E12 | 08 28.2 | | | FKC | | 40 | 16 | 5 |
| 9591 | | RAMY | 08 27 | 1205 | S18 | E11 | 08 28.3 | | BG | FKI | 690 | 27 | 16 | 4 |
| 9591 | 30662 | MWIL | 08 27 | 1415 | S18 | E09 | 08 28.3 | 6 | (D ) | | | | | |
| 9591 | | HOLL | 08 27 | 1705 | S19 | E08 | 08 28.3 | | BGD | FKI | 700 | 51 | 29 | 3 |
| 9591 | | LEAR | 08 28 | 0030 | S19 | E05 | 08 28.4 | | BG | FKI | 690 | 46 | 29 | 3 |
| 9591 | | VORO | 08 28 | 0208 | S17 | W03 | 08 27.9 | | | CRI | 88 | 6 | 6 | 3 |
| 9591 | | SVTO | 08 28 | 0545 | S20 | E03 | 08 28.5 | | BGD | FKI | 720 | 52 | 29 | 3 |
| 9591 | | KAND | 08 28 | 0815 | S19 | E01 | 08 28.4 | | | FKI | | 44 | 20 | 5 |
| 9591 | | KAND | 08 28 | 0815 | S19 | E01 | 08 28.4 | | | FKI | | 44 | 20 | 5 |
| 9591 | | RAMY | 08 28 | 1205 | S18 | E02 | 08 28.6 | | BGD | FKI | 490 | 34 | 25 | 3 |
| 9591 | 30662 | MWIL | 08 28 | 1445 | S18 | W03 | 08 28.4 | 6 | (D ) | | | | | |
| 9591 | | HOLL | 08 28 | 1512 | S17 | W04 | 08 28.3 | | BGD | FKI | 540 | 29 | 17 | 2 |
| 9591 | | VORO | 08 28 | 2137 | S17 | W15 | 08 27.8 | | | BXO | 44 | 6 | 8 | 3 |
| 9591 | | LEAR | 08 29 | 0350 | S18 | W12 | 08 28.2 | | BGD | FKI | 550 | 38 | 20 | 2 |
| 9591 | | SVTO | 08 29 | 0608 | S19 | W06 | 08 28.8 | | BGD | FKI | 630 | 35 | 34 | 2 |
| 9591 | | KAND | 08 29 | 0720 | S19 | W14 | 08 28.2 | | | FKI | | 17 | 19 | 3 |
| 9591 | | KAND | 08 29 | 0720 | S19 | W14 | 08 28.2 | | | FKI | | 17 | 19 | 3 |
| 9591 | | RAMY | 08 29 | 1217 | S20 | W16 | 08 28.3 | | BG | FKO | 580 | 15 | 18 | 4 |
| 9591 | 30662 | MWIL | 08 29 | 1445 | S18 | W16 | 08 28.4 | 6 | (D ) | | | | | |
| 9591 | | HOLL | 08 29 | 1800 | S24 | W13 | 08 28.7 | | BGD | FKC | 520 | 28 | 17 | 3 |
| 9591 | | VORO | 08 29 | 2211 | S16 | W28 | 08 27.8 | | | BXO | 24 | 2 | 7 | 2 |
| 9591 | | LEAR | 08 30 | 0120 | S18 | W23 | 08 28.3 | | BGD | FKO | 510 | 30 | 21 | 2 |
| 9591 | | SVTO | 08 30 | 0735 | S20 | W28 | 08 28.2 | | BGD | FKI | 650 | 29 | 19 | 2 |
| 9591 | | KAND | 08 30 | 1020 | S19 | W27 | 08 28.4 | | | CAI | | 22 | 19 | 4 |
| 9591 | | KAND | 08 30 | 1020 | S19 | W27 | 08 28.4 | | | CAI | | 22 | 19 | 4 |
| 9591 | | RAMY | 08 30 | 1215 | S21 | W24 | 08 28.7 | | BG | EKI | 420 | 14 | 11 | 4 |
| 9591 | | HOLL | 08 30 | 1450 | S20 | W28 | 08 28.5 | | BGD | EKI | 470 | 20 | 13 | 4 |
| 9591 | 30662 | MWIL | 08 30 | 1500 | S19 | W28 | 08 28.5 | 6 | (D ) | | | | | |
| 9591 | | VORO | 08 30 | 2212 | S20 | W38 | 08 28.0 | | | AXX | 31 | 3 | | 2 |
| 9591 | | LEAR | 08 31 | 0105 | S18 | W34 | 08 28.4 | | BGD | EKI | 510 | 20 | 15 | 1 |
| 9591 | | SVTO | 08 31 | 0746 | S18 | W33 | 08 28.8 | | BGD | FKO | 450 | 17 | 31 | 3 |
| 9591 | | KAND | 08 31 | 0755 | S20 | W38 | 08 28.4 | | | CKO | | 13 | 12 | 5 |
| 9591 | | KAND | 08 31 | 0755 | S20 | W38 | 08 28.4 | | | CKO | | 13 | 12 | 5 |
| 9591 | | RAMY | 08 31 | 1213 | S21 | W32 | 08 29.0 | | BGD | FKO | 360 | 14 | 25 | 3 |
| 9591 | 30684 | MWIL | 08 31 | 1500 | S15 | W55 | 08 27.5 | 4 | (AP) | | | | | |
| 9591 | 30662 | MWIL | 08 31 | 1500 | S19 | W40 | 08 28.6 | 6 | (D ) | | | | | |
| 9591 | | HOLL | 08 31 | 1537 | S20 | W33 | 08 29.1 | | BGD | FKO | 370 | 18 | 31 | 4 |
| 9591 | | KAND | 09 01 | 0650 | S19 | W49 | 08 28.6 | | | DKO | | 8 | 9 | 4 |
| 9591 | 30662 | MWIL | 09 01 | 1430 | S19 | W53 | 08 28.6 | 5 | (D ) | | | | | |
| 9591 | | SVTO | 09 02 | 0548 | S19 | W63 | 08 28.5 | | BGD | EKO | 430 | 12 | 12 | 2 |
| 9591 | | KAND | 09 02 | 0800 | S19 | W65 | 08 28.5 | | | DKI | | 13 | 10 | 3 |
| 9591 | | LEAR | 09 02 | 1230 | S18 | W62 | 08 28.9 | | BGD | EKI | 400 | 19 | 13 | 3 |
| 9591 | 30662 | MWIL | 09 02 | 1430 | S19 | W65 | 08 28.7 | 5 | (D ) | | | | | |
| 9591 | | KAND | 09 03 | 1030 | S20 | W81 | 08 28.3 | | | CAO | | 4 | 5 | 3 |
| 9591 | 30662 | MWIL | 09 03 | 1500 | S21 | W77 | 08 28.8 | 4 | (BD) | | | | | |
| 9591 | | LEAR | 09 04 | 0040 | S19 | W80 | 08 29.0 | | A | HKX | 100 | 1 | 4 | 2 |
| 9591E | | VORO | 08 23 | 2129 | S20 | E71 | 08 29.3 | | | HRX | 44 | 1 | | 3 |
| 9591E | | VORO | 08 23 | 2129 | S20 | E71 | 08 29.3 | | | HRX | 44 | 1 | | 3 |
| 9591E | | TACH | 08 24 | 0638 | S21 | E70 | 08 29.6 | | | BRO | 10 | 4 | 8 | 3 |
| 9591E | | KAND | 08 24 | 0840 | S21 | E64 | 08 29.3 | | | CRO | | 3 | 7 | 5 |
| 9591E | | KAND | 08 25 | 0900 | S20 | E55 | 08 29.6 | | | BXO | | 5 | 4 | 4 |
| 9591E | | KAND | 08 26 | 0950 | S18 | E43 | 08 29.7 | | | BXO | | 6 | 5 | 5 |
| 9591E | | KAND | 08 27 | 0740 | S19 | E30 | 08 29.6 | | | BXO | | 3 | 3 | 5 |
| 9591E | 30673 | MWIL | 08 27 | 1415 | S18 | E26 | 08 29.6 | 4 | (AF) | | | | | |
| 9591E | | KAND | 08 28 | 0615 | S19 | E16 | 08 29.5 | | | BXO | | 4 | 2 | 5 |
| 9591E | 30673 | MWIL | 08 28 | 1445 | S19 | E10 | 08 29.4 | 4 | (AF) | | | | | |
| 9591E | 30673 | MWIL | 08 29 | 1445 | S18 | W05 | 08 29.2 | 4 | (BF) | | | | | |
| 9591E | 30673 | MWIL | 08 30 | 1500 | S15 | W16 | 08 29.4 | 4 | (AP) | | | | | |

# SUNSPOT GROUPS
## (Ordered by Central Meridian Passage Date)

## AUGUST 2001

| NOAA/ USAF Group | Mt Wilson Group | Sta | Observation Mo | Day | Time (UT) | Lat | CMD | CMP Mo | Day | Max H | Mag Class | Spot Class | Corrected Area (10-6 Hemi) | Spot Count | Long. Extent (Deg) | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9591E | 30682 | MWIL | 08 | 30 | 1500 | S21 | W11 | 08 | 29.8 | 3 | (AP) | | | | | |
| 9591E | 30686 | MWIL | 08 | 31 | 1500 | S21 | W18 | 08 | 30.2 | 4 | (B ) | | | | | |
| 9591E | 30685 | MWIL | 08 | 31 | 1500 | S21 | W24 | 08 | 29.8 | 4 | (B ) | | | | | |
| 9591E | | LEAR | 09 | 01 | 0025 | S19 | W36 | 08 | 29.4 | | BGD | FKI | 380 | 26 | 28 | 3 |
| 9591E | | SVTO | 09 | 01 | 0547 | S20 | W36 | 08 | 29.6 | | BGD | FKO | 350 | 16 | 27 | 2 |
| 9591E | | RAMY | 09 | 01 | 1235 | S20 | W40 | 08 | 29.6 | | BGD | FKO | 300 | 13 | 28 | 2 |
| 9591E | | HOLL | 09 | 01 | 1430 | S21 | W45 | 08 | 29.2 | | BGD | FKO | 410 | 18 | 30 | 4 |
| 9591E | | RAMY | 09 | 02 | 1215 | S18 | W51 | 08 | 29.7 | | BGD | FKO | 210 | 12 | 29 | 3 |
| 9591E | 30690 | MWIL | 09 | 02 | 1430 | S16 | W53 | 08 | 29.7 | 4 | (AF) | | | | | |
| 9591E | | LEAR | 09 | 03 | 0010 | S17 | W67 | 08 | 29.0 | | BGD | DKO | 480 | 10 | 9 | 2 |
| 9591E | | RAMY | 09 | 03 | 1150 | S19 | W66 | 08 | 29.5 | | BGD | FKO | 120 | 4 | 11 | 3 |
| 9591E | 30690 | MWIL | 09 | 03 | 1500 | S19 | W62 | 08 | 30.0 | 3 | (AP) | | | | | |
| 9604 | | KAND | 09 | 01 | 0650 | S22 | W25 | 08 | 30.5 | | | BXO | | 2 | 4 | 4 |
| 9604 | 30686 | MWIL | 09 | 01 | 1430 | S21 | W30 | 08 | 30.4 | 4 | (AF) | | | | | |
| 9604 | 30686 | MWIL | 09 | 02 | 1430 | S21 | W43 | 08 | 30.4 | 3 | (AF) | | | | | |
| 9604 | | KAND | 09 | 03 | 1030 | S20 | W55 | 08 | 30.3 | | | DAO | | 5 | 2 | 3 |
| 9604 | | RAMY | 09 | 03 | 1150 | S21 | W55 | 08 | 30.4 | | B | DSO | 40 | 4 | 2 | 3 |
| 9604 | 30686 | MWIL | 09 | 03 | 1500 | S20 | W58 | 08 | 30.3 | 5 | (B ) | | | | | |
| 9604 | | VORO | 09 | 03 | 2132 | S21 | W62 | 08 | 30.2 | | | HAX | 254 | 4 | | 2 |
| 9604 | | LEAR | 09 | 04 | 0040 | S20 | W65 | 08 | 30.1 | | B | DSO | 200 | 5 | 6 | 2 |
| 9604 | | KAND | 09 | 04 | 1040 | S19 | W70 | 08 | 30.2 | | | CAO | | 8 | 13 | 4 |
| 9604 | | RAMY | 09 | 04 | 1226 | S21 | W68 | 08 | 30.4 | | B | DAO | 210 | 9 | 6 | 3 |
| 9604 | 30686 | MWIL | 09 | 04 | 1445 | S20 | W70 | 08 | 30.4 | 5 | (BP) | | | | | |
| 9604 | | HOLL | 09 | 04 | 1510 | S23 | W72 | 08 | 30.2 | | B | CAO | 300 | 3 | 10 | 4 |
| 9604 | | VORO | 09 | 04 | 2155 | S21 | W77 | 08 | 30.1 | | | DAI | 321 | 4 | 3 | 2 |
| 9604 | | LEAR | 09 | 05 | 0040 | S20 | W78 | 08 | 30.2 | | B | DAO | 150 | 6 | 8 | 3 |
| 9604 | | KAND | 09 | 05 | 0800 | S18 | W86 | 08 | 29.9 | | | HA | | 1 | 2 | 5 |
| 9604 | | SVTO | 09 | 05 | 1145 | S20 | W85 | 08 | 30.1 | | B | DAO | 30 | 2 | 7 | 2 |
| 9597 | | SVTO | 08 | 26 | 0720 | N17 | E57 | 08 | 30.6 | | B | BXO | | 2 | 3 | 3 |
| 9597 | | KAND | 08 | 26 | 0950 | N17 | E54 | 08 | 30.5 | | | AX | | 1 | | 5 |
| 9597 | 30674 | MWIL | 08 | 26 | 1445 | N16 | E50 | 08 | 30.4 | 4 | (AP) | | | | | |
| 9597 | | HOLL | 08 | 26 | 1510 | N17 | E51 | 08 | 30.5 | | A | AXX | | 1 | | 3 |
| 9597 | | LEAR | 08 | 27 | 0202 | N16 | E48 | 08 | 30.7 | | B | DSO | 20 | 4 | 3 | 2 |
| 9597 | | TACH | 08 | 27 | 0506 | N16 | E44 | 08 | 30.5 | | | AR | 45 | 2 | 2 | 3 |
| 9597 | | SVTO | 08 | 27 | 0625 | N16 | E44 | 08 | 30.6 | | B | DAO | 60 | 8 | 5 | 3 |
| 9597 | | KAND | 08 | 27 | 0740 | N16 | E43 | 08 | 30.6 | | | BXO | | 4 | 4 | 5 |
| 9597 | | RAMY | 08 | 27 | 1205 | N18 | E40 | 08 | 30.5 | | B | DSO | 60 | 8 | 4 | 4 |
| 9597 | 30674 | MWIL | 08 | 27 | 1415 | N16 | E39 | 08 | 30.5 | 4 | (B ) | | | | | |
| 9597 | | HOLL | 08 | 27 | 1705 | N13 | E37 | 08 | 30.5 | | B | CAO | 60 | 10 | 5 | 3 |
| 9597 | | LEAR | 08 | 28 | 0030 | N16 | E34 | 08 | 30.6 | | B | DAO | 50 | 10 | 7 | 3 |
| 9597 | | SVTO | 08 | 28 | 0545 | N17 | E32 | 08 | 30.7 | | B | DAO | 70 | 11 | 6 | 3 |
| 9597 | | KAND | 08 | 28 | 0615 | N17 | E31 | 08 | 30.6 | | | BXI | | 11 | 4 | 5 |
| 9597 | | RAMY | 08 | 28 | 1205 | N18 | E27 | 08 | 30.5 | | B | DSO | 10 | 8 | 6 | 3 |
| 9597 | 30674 | MWIL | 08 | 28 | 1445 | N17 | E26 | 08 | 30.6 | 4 | (BP) | | | | | |
| 9597 | | HOLL | 08 | 28 | 1512 | N17 | E27 | 08 | 30.7 | | B | CAO | 40 | 7 | 5 | 2 |
| 9597 | | LEAR | 08 | 29 | 0350 | N16 | E19 | 08 | 30.6 | | B | DSO | 40 | 10 | 6 | 2 |
| 9597 | | SVTO | 08 | 29 | 0608 | N18 | E18 | 08 | 30.6 | | B | BXO | 30 | 14 | 7 | 2 |
| 9597 | | KAND | 08 | 29 | 0720 | N17 | E18 | 08 | 30.7 | | | BXO | | 3 | 5 | 3 |
| 9597 | 30674 | MWIL | 08 | 29 | 1445 | N17 | E13 | 08 | 30.6 | 4 | (BP) | | | | | |
| 9597 | | HOLL | 08 | 29 | 1800 | N16 | E12 | 08 | 30.7 | | B | BXO | 10 | 4 | 5 | 3 |
| 9597 | | SVTO | 08 | 30 | 0735 | N18 | E06 | 08 | 30.8 | | B | BXO | 10 | 2 | 4 | 2 |
| 9597 | | RAMY | 08 | 30 | 1215 | N19 | E04 | 08 | 30.8 | | B | BXO | 10 | 4 | 3 | 4 |
| 9597 | 30687 | MWIL | 09 | 01 | 1430 | N18 | W28 | 08 | 30.6 | 3 | (AP) | | | | | |
| 9597 | 30687 | MWIL | 09 | 02 | 1430 | N17 | W39 | 08 | 30.7 | 3 | (B ) | | | | | |
| 9591F | | KAND | 09 | 02 | 0800 | N11 | W32 | 08 | 31.0 | | | AX | | 1 | | 3 |
| 9597A | | VORO | 08 | 28 | 0208 | N19 | E42 | 08 | 31.3 | | | AXX | 31 | 3 | | 3 |

Stations reporting:

HOLL = Holloman
KAND = Kandilli
LEAR = Learmonth
MWIL = Mt. Wilson
PALE = Palehua
RAMY = Ramey
SVTO = San Vito
TACH = Tashkent
VORO = Voroshilov

AUGUST 2001

| Day | Start (UT) | Max (UT) | End (UT) | Imp | Wide Spread Index | Number of Station Reports by Type SWF | SEA | SPA | LF-SPA | SES | Flare (UT) | X-ray Class | NOAA Region |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 0820 | 0834 | 0911 | 2 | 1 | | 1 | | | | No flare | | |
| 01 | 2218 | 2221 | 2300 | 2- | 3 | | | | | 2 | 2222 | | 9561 |
| 02 | 0958 | 1003 | 1113 | 1 | 1 | | 1 | | | | 1059 | B8.2 | |
| 02 | 1205 | 1208 | 1225D | 1 | 1 | | | | | 1 | 1200 | C2.4 | 9563 |
| 02 | 1225E | 1241 | 1312 | 2+ | 1 | | | | | 1 | 1225 | C2.1 | 9566 |
| 02 | 1455 | 1501 | 1526 | 1 | 5 | | 1 | | | 5 | 1455 | C3.1 | 9563 |
| 02 | 1556 | 1612 | 1639 | 2- | 5 | | | | | 5 | 1606 | C4.8 | 9563 |
| 02 | 1625 | 1630 | 1705 | 2 | 1 | | | | | 1 | No flare | | |
| 02 | 1743 | 1744 | 1755 | 1- | 1 | | | | | 1 | 1742 | C2.8 | 9563 |
| 02 | 1856 | 1858 | 1920 | 1 | 3 | | | | | 2 | 1855 | C2.1 | 9563 |
| 02 | 2008 | 2011 | 2033 | 1+ | 3 | | | | | 2 | 2001 | C1.8 | |
| 03 | 0306 | 0307 | 0330 | 1 | 1 | | | | | 1 | 0302 | M1.5 | 9563 |
| 03 | 0958 | 1006 | 1024 | 1+ | 1 | | | | | 1 | 0957 | C1.7 | 9563 |
| 03 | 1142 | 1149 | 1213 | 1+ | 1 | | | | | 1 | 1138 | C1.6 | |
| 03 | 1633 | 1635 | 1647 | 1- | 1 | | | | | 1 | 1636 | C1.0 | 9557 |
| 04 | 0948 | 0957 | 1030 | 2+ | 5 | 1 | 1 | 1 | | 3 | 0944 | C7.9 | 9563 |
| 04 | 1225 | 1229 | 1312 | 3 | 5 | 1 | 2 | 1 | | 7 | 1221 | C9.6 | |
| 04 | 1838 | 1845 | 1920 | 2 | 3 | | | | | 2 | 1837 | C2.3 | 9566 |
| 04 | 1942 | 1945 | 2005 | 1 | 5 | | | | | 3 | 1939 | C2.8 | 9557 |
| 05 | 0811 | 0827 | 0950 | 2 | 1 | | 1 | | | | No flare | | |
| 05 | 1040 | 1051 | 1108 | 1+ | 1 | | | | | 1 | 1039 | C2.4 | |
| 05 | 1252 | 1257 | 1311 | 2 | 5 | 1 | | 1 | | 4 | 1249 | C4.1 | 9566 |
| 05 | 1321 | 1325 | 1345 | 1 | 5 | | | | | 3 | 1320 | C2.2 | 9557 |
| 05 | 1433 | 1439 | 1457 | 1 | 5 | | | | | 3 | 1422 | C2.0 | 9557 |
| 05 | 1502 | 1505 | 1522 | 1- | 5 | | | | | 3 | 1500 | C3.5 | 9557 |
| 05 | 1528 | 1531 | 1601 | 2+ | 5 | 1 | | 1 | | 7 | 1522 | M1.7 | 9557 |
| 05 | 1828 | 1832 | 1853 | 1 | 5 | | | | | 3 | 1825 | C3.3 | 9557 |
| 05 | 2119 | 2128 | 2153 | 1+ | 5 | | | | | 3 | 2116 | C7.1 | 9567 |
| 05 | 2217 | 2222 | 2306 | 2- | 5 | | | | | 5 | 2216 | M4.9 | 9557 |
| 06 | 0724 | 0728 | 0751 | 3- | 5 | 1 | 2 | 1 | | 2 | 0722 | C5.5 | 9557 |
| 06 | 0755 | 0800 | 0830 | 2 | 3 | | | | | 2 | 0759 | C2.0 | |
| 06 | 1212 | 1219 | 1243 | 1+ | 1 | | | | | 1 | 1208 | C1.7 | |
| 06 | 1236 | 1240 | 1344 | 1 | 1 | | 1 | | | | No flare | | |
| 06 | 1518 | 1527 | 1550 | 2- | 3 | | | | | 2 | 1512 | C2.9 | 9570 |
| 07 | 0728 | 0736 | 0826 | 3 | 5 | 1 | 2 | 1 | | 3 | 0726 | M1.1 | 9557 |
| 07 | 0845 | 0854 | 0915 | 1+ | 1 | | | | | 1 | 0836 | C1.8 | 9557 |
| 07 | 1036 | 1049 | 1111 | 2 | 1 | | | | | 1 | 1032 | C2.7 | 9557 |
| 07 | 1129 | 1137 | 1156 | 1+ | 1 | | | | | 1 | 1123 | C3.1 | 9557 |
| 07 | 1250 | 1304 | 1330 | 2 | 3 | | | | | 2 | 1233 | C2.8 | 9557 |
| 07 | 1332 | 1341 | 1406 | 2 | 5 | 1 | 1 | 1 | | 7 | 1330 | C3.5 | |
| 07 | 1441 | 1448 | 1516 | 1+ | 5 | | 1 | | | 6 | 1440 | C2.8 | |
| 07 | 1534 | 1540 | 1606 | 1+ | 5 | | | | | 5 | 1530 | C2.7 | 9563 |
| 07 | 1625 | 1629 | 1654 | 1+ | 5 | | | | | 4 | 1623 | C3.6 | 9557 |
| 07 | 1851 | 1855 | 1917 | 1 | 5 | | | | | 3 | 1851 | C3.5 | |
| 07 | 2115 | 2128 | 2215 | 2+ | 1 | | | | | 1 | 2112 | C4.1 | |
| 07 | 2216 | 2222 | 2300 | 2 | 1 | | | | | 1 | * | | |
| 07 | 2322 | 2330 | 2345 | 1 | 1 | | | | | 1 | 2324 | C3.8 | |
| 08 | 0710 | 0714 | 0736 | 2 | 5 | | 2 | 1 | | 2 | 0706 | C3.9 | |
| 08 | 0749 | 0756 | 0806 | 2- | 5 | | 1 | 1 | | 2 | 0749 | C4.5 | 9557 |
| 08 | 0754 | 0810 | 0858 | 2 | 1 | | 1 | | | | 0749 | C4.5 | 9557 |
| 08 | 1016 | 1034 | 1059 | 2 | 5 | | 2 | 1 | | 1 | 1029 | C2.6 | 9563 |
| 08 | 1459 | 1503 | 1525 | 1 | 3 | | | | | 2 | 1459 | C1.6 | 9563 |
| 08 | 1652 | 1701 | 1736 | 2 | 5 | | | | | 5 | 1650 | C4.2 | |
| 08 | 1704 | 1719 | 1756 | 1 | 1 | | 1 | | | | 1650 | C4.2 | |
| 08 | 1956 | 2000 | 2027 | 1+ | 5 | | | | | 3 | 1954 | C4.0 | 9566 |
| 08 | 2218 | 2220 | 2245 | 1+ | 1 | | | | | 1 | * | | |
| 09 | 0640 | 0643 | 0647D | 1- | 1 | | | | | 1 | 0639 | C3.8 | |
| 09 | 0644 | 0655 | 0722 | 2 | 5 | | | | | 2 | 0639 | C3.8 | |

* = no flare patrol.

# SUDDEN IONOSPHERIC DISTURBANCES

## AUGUST 2001

| Day | Start (UT) | Max (UT) | End (UT) | Imp | Wide Spread Index | Number of Station Reports by Type SWF | SEA | SPA | LF-SPA | SES | Flare (UT) | X-ray Class | NOAA Region |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 09 | 0722 | 0728 | 0755 | 2- | 5 | | | | | 2 | 0721 | C3.1 | |
| 09 | 0811 | 0815 | 0835 | 1 | 5 | | | | | 2 | 0808 | C2.6 | 9567 |
| 09 | 1025 | 1058 | 1158 | 1- | 5 | | 1 | | | 1 | No flare | | |
| 09 | 1118 | 1124 | 1159 | 2+ | 5 | 1 | | 1 | | | 1116 | C3.7 | |
| 09 | 1825 | 1832 | 1916 | 2 | 5 | | | | | 5 | 1822 | C7.8 | 9570 |
| 10 | 1540 | 1545 | 1554 | 1- | 1 | | | | | 1 | 1540 | C1.7 | |
| 10 | 1847 | 1859 | 1906 | 1 | 1 | | | | | 1 | 1840 | C2.4 | 9563 |
| 11 | 2007 | 2009 | 2020 | 1- | 1 | | | | | 1 | * | | |
| 12 | 1712 | 1714 | 1730 | 1- | 1 | | | | | 1 | 1709 | C1.6 | |
| 12 | 2052 | 2059 | 2130 | 2- | 3 | | | | | 2 | 2052 | C2.2 | |
| 13 | 1349 | 1405 | 1443 | 2+ | 5 | 1 | 2 | 1 | | 2 | 1343 | C4.6 | |
| 14 | 0940 | 0944 | 1032 | 3- | 5 | 1 | 2 | 1 | | 3 | 0934 | C9.7 | |
| 16 | 0954 | 1005 | 1106 | 2 | 5 | 1 | 1 | 1 | | 2 | 0951 | C3.9 | |
| 16 | 1520 | 1525 | 1530 | 1- | 1 | | | | | 1 | 1514 | B7.6 | |
| 16 | 1744 | 1746 | 1815 | 1+ | 1 | | | | | 1 | 1740 | B8.8 | |
| 17 | 0910 | 0915 | 0920 | 2+ | 1 | | | | | 1 | No flare | | |
| 18 | 0400 | 0402 | 0415 | 1- | 1 | | | | | 1 | 0355 | C2.9 | |
| 18 | 0955 | 1002U | 1026 | 1 | 1 | | 1 | | | | No flare | | |
| 18 | 1111 | 1122 | 1154 | 2+ | 5 | 1 | | 1 | | | 1109 | C3.1 | 9582 |
| 18 | 1248 | 1252 | 1315 | 1+ | 1 | | | | | 1 | 1245 | C2.8 | 9582 |
| 20 | 0754 | 0800 | 0834 | 1 | 1 | | 1 | | | | 0750 | | |
| 20 | 0822 | 0823 | 0845 | 1 | 1 | | | | | 1 | 0817 | C3.6 | 9582 |
| 21 | 1320 | 1355 | 1454 | 1 | 1 | | 1 | | | | No flare | | |
| 21 | 1539 | 1546 | 1626 | 2 | 3 | | | | | 2 | * | | |
| 21 | 1642 | 1656 | 1730 | 1 | 1 | | 1 | | | | * | | |
| 21 | 2154 | 2159 | 2221 | 1+ | 3 | | | | | 3 | 2151 | M1.5 | |
| 22 | 0445 | 0450 | 0500 | 1- | 1 | | | | | 1 | No flare | | |
| 22 | 0504 | 0507 | 0540 | 2 | 1 | | | | | 1 | 0502 | C6.2 | |
| 22 | 0736 | 0743 | 0821 | 2 | 5 | 1 | | 1 | | 1 | 0735 | C4.2 | |
| 22 | 0906 | 0910 | 0941 | 3- | 5 | 1 | 2 | 1 | | 2 | 0904 | C6.6 | |
| 22 | 0935 | 0940 | 0958 | 1- | 5 | | 1 | | | 2 | 0924 | C3.9 | |
| 22 | 1201 | 1219 | 1242 | 3 | 5 | 1 | 2 | 1 | | 2 | 1158 | M1.0 | |
| 22 | 1502 | 1507 | 1522 | 1- | 5 | | | | | 3 | 1502 | C3.7 | 9591 |
| 22 | 1550 | 1555 | 1615 | 1 | 1 | | | | | 1 | 1554 | C2.8 | |
| 22 | 1723 | 1731 | 1802 | 2- | 5 | | | | | 2 | 1725 | C5.4 | 9591 |
| 22 | 1844 | 1849 | 1855 | 1- | 1 | | | | | 1 | 1844 | C7.5 | 9591 |
| 22 | 2114 | 2117 | 2122 | 1- | 1 | | | | | 1 | 2112 | C7.0 | 9591 |
| 23 | 0140 | 0142 | 0151 | 1- | 1 | | | | | 1 | * | | |
| 23 | 0512 | 0515 | 0600 | 2+ | 1 | | | | | 1 | 0508 | C8.3 | |
| 23 | 0755 | 0800 | 0830 | 2 | 1 | | | | | 1 | 0755 | C3.0 | |
| 23 | 0946 | 0950 | 1007 | 1 | 1 | | | | | 1 | 0944 | C3.3 | |
| 23 | 1114 | 1125 | 1156 | 2 | 5 | 1 | | 1 | | | 1112 | C4.8 | |
| 23 | 1346 | 1350 | 1408 | 2- | 5 | 1 | | 1 | | 5 | 1342 | C5.9 | |
| 23 | 1751 | 1756 | 1830 | 2- | 5 | | | | | 4 | 1752 | C3.8 | 9591 |
| 24 | 0624 | 0630 | 0715 | 2+ | 1 | | | | | 1 | 0622 | C3.8 | |
| 24 | 0854 | 0905 | 1004 | 3- | 5 | 1 | | 1 | | 2 | 0848 | M1.1 | 9591 |
| 24 | 0858 | 0936 | 1021 | 1 | 1 | | 1 | | | | 0848 | M1.1 | 9591 |
| 24 | 1153 | 1158 | 1201 | 1- | 1 | | | | | 1 | 1152 | | 9591 |
| 24 | 1209 | 1215 | 1219 | 1- | 1 | | | | | 1 | No flare | | |
| 24 | 1315 | 1320 | 1330 | 1- | 5 | | | | | 3 | 1315 | C4.3 | 9591 |
| 24 | 1332 | 1336 | 1405 | 2 | 5 | 1 | 1 | 1 | | 5 | 1330 | C5.7 | 9591 |
| 24 | 1510 | 1513 | 1538 | 2 | 5 | 1 | 2 | 1 | | 5 | 1508 | C4.8 | 9591 |
| 24 | 1655 | 1702 | 1725 | 1+ | 5 | | 1 | | | 5 | 1658 | C3.8 | |
| 24 | 1750 | 1759 | 1825 | 2- | 5 | | | | | 3 | 1750 | C4.0 | |
| 24 | 1841 | 1851 | 1931 | 2- | 5 | | | | | 4 | 1829 | C5.5 | |

* = no flare patrol.

AUGUST 2001

| Day | Start (UT) | Max (UT) | End (UT) | Imp | Wide Spread Index | Number of Station Reports by Type SWF | SEA | SPA | LF-SPA | SES | Flare (UT) | X-ray Class | NOAA Region |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | 2015 | 2024 | 2044 | 1 | 5 | | | | | 2 | 2005 | C7.8 | |
| 24 | 2033 | 2045 | 2113 | 2 | 1 | | | | | 1 | 2005 | C7.8 | |
| 24 | 2113 | 2115 | 2145 | 1+ | 1 | | | | | 1 | 2113 | C7.0 | |
| 24 | 2231 | 2245 | 2339 | 2+ | 1 | | | | | 1 | 2231 | M1.2 | |
| 24 | 2333 | 2640 | 2528D | 3 | 1 | | | | | 1 | 2347 | M3.5 | 9591 |
| 25 | 0723 | 0727 | 0800 | 2 | 1 | | | | | 1 | 0717 | C3.6 | 9591 |
| 25 | 0817 | 0821 | 0837 | 1 | 1 | | | | | 1 | 0819 | C2.6 | 9591 |
| 25 | 0842 | 0845 | 0856 | 1- | 1 | | | | | 1 | 0840 | C2.5 | 9591 |
| 25 | 0920 | 0926 | 1021 | 3 | 5 | 1 | 1 | 1 | | 1 | 0909 | M1.2 | 9591 |
| 25 | 0957E | 0958 | 1010 | 1- | 1 | | | | | 1 | 0953 | C3.7 | 9591 |
| 25 | 1322 | 1325 | 1344 | 1 | 5 | | | | | 3 | 1323 | C3.2 | 9591 |
| 25 | 1406 | 1412 | 1442 | 2 | 3 | | | | | 2 | 1411 | C2.3 | |
| 25 | 1528 | 1531 | 1542 | 1- | 5 | | | | | 3 | 1529 | C2.2 | 9591 |
| 25 | 1627 | 1635 | 1748 | 3 | 5 | | 2 | 1 | | 5 | 1623 | X5.3 | 9591 |
| 25 | 1640 | 1730 | 2130 | 3+ | 1 | | | | | 1 | 1623 | X5.3 | 9591 |
| 25 | 1954 | 1957 | 2008 | 1- | 5 | | | | | 2 | 1952 | M1.1 | 9591 |
| 25 | 2216 | 2220 | 2251 | 2- | 3 | | | | | 2 | 2216 | C9.6 | 9587 |
| 25 | 2342 | 2345 | 2428 | 2+ | 1 | | | | | 1 | 2341 | C7.0 | 9591 |
| 26 | 0917 | 0929 | 0944 | 1+ | 5 | | | | | 2 | 0916 | C3.4 | 9591 |
| 26 | 1004 | 1016 | 1051 | 2 | 5 | 1 | | 1 | | 1 | 1002 | C6.1 | 9591 |
| 26 | 1012 | 1023 | 1053 | 2 | 1 | | | | | 1 | No flare | | |
| 26 | 1210 | 1232 | 1256 | 2+ | 1 | | | | | 1 | 1206 | M1.3 | |
| 26 | 1222 | 1306 | 1507 | 3 | 5 | 1 | 1 | 1 | | 5 | 1206 | M1.3 | |
| 27 | 0633 | 0644 | 0722 | 3- | 5 | 1 | 2 | 1 | | | 0631 | M1.9 | |
| 27 | 1341 | 1348 | 1412 | 2 | 5 | 1 | 1 | 1 | | 2 | 1338 | C4.6 | 9591 |
| 27 | 1410 | 1415 | 1516 | 2+ | 1 | | | | | 1 | 1411 | C3.3 | 9591 |
| 27 | 1524 | 1532 | 1603 | 2- | 3 | | | | | 2 | 1525 | C3.9 | 9591 |
| 28 | 0003 | 0007 | 0035 | 1+ | 1 | | | | | 1 | 0002 | M1.0 | 9591 |
| 28 | 0652 | 0656 | 0709 | 2 | 5 | 1 | 1 | 1 | | 1 | 0650 | C4.2 | 9600 |
| 28 | 0744 | 0751 | 0810 | 2 | 5 | 1 | 2 | 1 | | 1 | 0743 | M1.2 | 9601 |
| 28 | 0815E | 0820 | 0900 | 2 | 1 | | | | | 1 | 0743 | M1.2 | 9601 |
| 28 | 0820 | 0829 | 0900 | 3 | 5 | 1 | | 1 | | 1 | 0743 | M1.2 | 9601 |
| 28 | 0922 | 0926 | 0947 | 2+ | 5 | 1 | 1 | 1 | | 2 | 0923 | C9.0 | |
| 28 | 0954 | 1002U | 1021 | 1 | 1 | | 1 | | | | 1003 | C6.3 | 9591 |
| 28 | 1146 | 1151 | 1207 | 2+ | 5 | 1 | 1 | 1 | | 3 | 1145 | C5.1 | 9600 |
| 28 | 1219 | 1224 | 1244 | 2 | 5 | 1 | 1 | 1 | | 3 | 1217 | C5.5 | 9587 |
| 28 | 1337 | 1344 | 1404 | 3- | 5 | 1 | 1 | 1 | | 6 | 1335 | C9.4 | 9587 |
| 28 | 1434 | 1437 | 1454 | 1- | 5 | | | | | 5 | 1434 | C4.4 | |
| 28 | 1514 | 1516 | 1531 | 1- | 1 | | | | | 1 | No flare | | |
| 28 | 1532 | 1538 | 1553 | 1- | 5 | | | | | 5 | 1532 | C5.7 | 9600 |
| 28 | 1555 | 1609 | 1655 | 2 | 5 | | | | | 5 | 1556 | M1.1 | 9600 |
| 28 | 1943 | 1947 | 2001 | 1- | 5 | | | | | 3 | 1942 | C6.1 | 9600 |
| 28 | 2003 | 2008 | 2037 | 1+ | 5 | | | | | 5 | 2002 | C6.5 | 9600 |
| 29 | 0506 | 0516 | 0547 | 2- | 1 | | | | | 1 | 0503 | M1.6 | 9600 |
| 29 | 0711 | 0713 | 0757 | 2+ | 5 | 1 | 2 | 1 | | 2 | 0713 | C6.7 | |
| 29 | 0911 | 0915 | 0954 | 3 | 5 | 1 | 1 | 1 | | 2 | 0908 | C6.5 | |
| 29 | 1109 | 1116 | 1138 | 2 | 5 | 1 | | 1 | | 1 | 1108 | C6.2 | 9591 |
| 29 | 1227 | 1246 | 1246 | 1 | 1 | | 1 | | | | No flare | | |
| 29 | 1244 | 1259 | 1337 | 3 | 5 | 1 | 2 | 1 | | 8 | 1242 | M1.2 | 9600 |
| 29 | 1342 | 1347 | 1434 | 2+ | 1 | | | | | 1 | No flare | | |
| 29 | 1438 | 1446 | 1509 | 3- | 5 | 1 | 2 | 1 | | 8 | 1437 | C7.4 | 9601 |
| 29 | 1815 | 1825 | 1915 | 2+ | 1 | | | | | 1 | 1819 | C3.3 | 9600 |
| 29 | 2015 | 2019 | 2052 | 2- | 5 | | | | | 5 | 2013 | C9.6 | 9600 |
| 30 | 0639 | 0649 | 0709 | 1 | 3 | | 1 | | | 1 | 0641 | C6.0 | 9591 |
| 30 | 0815 | 0820 | 0845 | 1+ | 1 | | | | | 1 | 0817 | C2.3 | |
| 30 | 1728 | 1732 | 1746 | 1- | 5 | | | | | 5 | 1727 | C3.7 | |
| 30 | 1746 | 1750 | 1828 | 2- | 5 | | | | | 5 | 1745 | M1.5 | 9591 |
| 30 | 2032 | 2036 | 2115 | 2- | 5 | | | | | 6 | 2034 | M3.0 | 9601 |
| 31 | 0820 | 0838U | 1007 | 2 | 1 | | 1 | | | | No flare | | |
| 31 | 1037 | 1045 | 1111 | 3 | 5 | 1 | 2 | 1 | | 3 | 1035 | M1.6 | 9601 |

* = no flare patrol.

# SUDDEN IONOSPHERIC DISTURBANCES

## AUGUST 2001

| Day | Start (UT) | Max (UT) | End (UT) | Imp | Wide Spread Index | Number of Station Reports by Type SWF | SEA | SPA | LF-SPA | SES | Flare (UT) | X-ray Class | NOAA Region |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 31 | 1135 | 1145 | 1218 | 2 | 5 | 1 | | 1 | | 1 | 1133 | C4.8 | 9601 |
| 31 | 1456 | 1610 | 1657 | 1 | 1 | | 1 | | | | 1503 | C1.7 | 9601 |
| 31 | 2120 | 2122 | 2210 | 2 | 3 | | | | | 2 | 2120 | C8.6 | 9601 |
| 31 | 2235 | 2241 | 2326 | 2 | 3 | | | | | 2 | 2227 | M2.9 | 9601 |

* = no flare patrol.

## OBSERVATORIES REPORTING FOR AUGUST 2001

| | | | |
|---|---|---|---|
| Bedford, Massachusetts, USA | SES | Milan, Italy | SES |
| Bern, Switzerland | SES | Panska Ves, Czech Republic | SES, SEA, SWF |
| Brookline, Massachusetts, USA | SES | Sussex, United Kingdom | SES |
| Edenvale, Rep of S. Africa | SES | Torrington, Connecticut, USA | SES |
| Houston, Texas, USA | SES | Udine City, Italy | SES |
| Hudson, Ohio, USA | SES | Upice, Czech Republic | SEA |
| Isola del Gran Sasso, Italy | SES | | |

Observations are not necessarily continuous.

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| Day | OBSERVATION Start (UT) | OBSERVATION End (UT) | Sta | EVENT Start (UT) | EVENT End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | FREQUENCY Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | | | PALE | 0023.0 | 0026.0 | III | | 1 | 25 | 180 | |
| | 0000 | 0944 | HIRA | 0034.0 | 0039.5 | III | G | 1 | 90 | 500 | |
| | | | LEAR | 0108.0 | 0111.0 | III | | 1 | 25 | 180 | |
| | 0000 | 0700 | CULG | 0109.0 | 0112.0 | III | G | 2 | 57X | 330 | |
| | | | HOLL | 0110.0 | 0111.0 | III | | 1 | 67 | 180 | |
| | | | PALE | 0110.0 | 0110.0 | III | | 1 | 25 | 180 | |
| | | | HIRA | 0110.5 | 0111.0 | III | B | 2 | 80 | 400 | |
| | | | PALE | 0128.0 | 0454.0 | CONT | | 1 | 25 | 180 | |
| | | | HIRA | 0158.0 | 0159.0 | III | G | 2 | 80 | 520 | |
| | | | CULG | 0442.0 | 0443.0 | III | G | 1 | 57X | 180 | |
| | | | HIRA | 0442.0 | 0443.0 | III | G | 1 | 60 | 270 | |
| | | | SVTO | 0442.0 | 0443.0 | III | | 1 | 72 | 160 | |
| | 0447 | 1729 | ONDR | | | | | | | | |
| | 0451 | 1200 | IZMI | 0451.0E | 0607.0 | III | N | 1 | 45 | 90 | |
| | | | IZMI | 0451.8 | 0453.8 | III | G | 1 | 45 | 90 | |
| | | | IZMI | 0506.0 | 0506.1 | III | B | 1 | 45 | 80 | |
| | | | IZMI | 0527.4 | 0529.0 | III | GG | 1 | 45 | 90 | |
| | | | IZMI | 0540.8 | 0541.0 | III | G | 2 | 45 | 240 | |
| | | | IZMI | 0551.3 | 0551.8 | III | G | 2 | 45 | 95 | |
| | 1943 | 2400 | HIRA | | | | | | | | |
| | 2100 | 2400 | CULG | | | | | | | | |
| 02 | 0000 | 0343 | CULG | | | | | | | | |
| | 0448 | 0705 | CULG | | | | | | | | |
| | | | SVTO | 0610.0 | 1742.0 | III | N | 2 | 25 | 180 | |
| | 0450 | 1200 | IZMI | 0740.7 | 0741.8 | III | G,U | 2 | 45 | 165 | |
| | | | LEAR | 0741.0 | 0741.0 | III | | 1 | 52 | 180 | |
| | 0000 | 0943 | HIRA | 0741.0 | 0741.5 | III | B | 2 | 90 | 140 | |
| | | | IZMI | 0823.9 | 0824.9 | III | GG,FS | 2 | 25X | 270X | |
| | | | HIRA | 0824.0 | 0825.0 | III | B | 3 | 50 | 320 | |
| | | | LEAR | 0824.0 | 0825.0 | III | | 3 | 25 | 180 | |
| | | | SVTO | 0824.0 | 0825.0 | III | | 2 | 25 | 180 | |
| | | | IZMI | 0824.4U | 0825.3 | V | | 2 | 25X | 65 | |
| | | | IZMI | 0938.6 | 0939.3 | III | G | 1 | 45 | 100 | |
| | | | IZMI | 0945.0 | 0949.8 | III | GG | 2 | 25 | 270X | |
| | | | IZMI | 1023.1 | 1023.3 | III | B | 2 | 50 | 90 | |
| | | | IZMI | 1107.1 | 1107.8 | III | G | 2 | 25X | 235 | |
| | | | IZMI | 1125.4 | 1126.3 | III | GG | 1 | 45 | 230 | |
| | | | IZMI | 1131.4 | 1132.3 | III | G,C,FS | 2 | 25 | 160 | |
| | | | IZMI | 1152.0 | 1152.2 | III | B | 2 | 45 | 100 | |
| | | | SGMR | 1204.0 | 1206.0 | III | | 3 | 30 | 80 | |
| | | | SVTO | 1204.0 | 1206.0 | III | | 3 | 25 | 180 | |
| | | | SVTO | 1233.0 | 1240.0 | II | | 2 | 30 | 148 | ESS 0784 |
| | | | SGMR | 1236.0 | 1238.0 | II | | 1 | 35 | 57 | ESS 0800 |
| | | | SGMR | 1243.0 | 1748.0 | III | N | 1 | 30 | 80 | |
| | | | HOLL | 1253.0 | 1254.0 | III | | 1 | 25 | 180 | |
| | | | SVTO | 1253.0 | 1254.0 | III | | 2 | 25 | 180 | |
| | | | HOLL | 1317.0 | 1908.0 | III | N | 2 | 25 | 180 | |
| | | | SGMR | 1457.0 | 1501.0 | III | | 3 | 30 | 80 | |
| | | | SVTO | 1457.0 | 1501.0 | III | | 2 | 25 | 180 | |
| | | | ONDR | 1608.3 | 1611.5 | DCIM | G | 1 | 800X | 1793 | |
| | 0448 | 1731 | ONDR | 1608.5 | 1612.0 | DCIM | G | 1 | 2234 | 4500X | |
| | 0725 | 1800 | BLEN | 1609.1 | 1612.0 | III | C, RS | 1 | 1250X | 4000X | |
| | | | HOLL | 1615.0 | 1628.0 | II | | 1 | 25 | 141 | ESS 0438 |
| | | | SVTO | 1615.0 | 1627.0 | II | | 1 | 25 | 123 | ESS 0629 |
| | | | SGMR | 1616.0 | 1628.0 | II | | 1 | 30 | 65 | ESS 0750 |
| | | | PALE | 1720.0 | 1749.0 | III | N | 2 | 25 | 180 | |
| | | | SGMR | 1725.0 | 1729.0 | III | | 3 | 30 | 80 | |
| | | | BLEN | 1725.5 | 1752.0 | III | RS | 2 | 1250X | 2400 | |
| | | | SGMR | 1836.0 | 1908.0 | III | N | 3 | 30 | 80 | |
| | | | PALE | 1849.0 | 1850.0 | III | | 3 | 25 | 180 | |
| | | | PALE | 1859.0 | 1901.0 | V | | 3 | 25 | 180 | |
| | | | HOLL | 2003.0 | 2044.0 | III | N | 2 | 25 | 180 | |
| | | | PALE | 2003.0 | 2005.0 | III | | 3 | 25 | 180 | |
| | | | SGMR | 2003.0 | 2223.0 | III | N | 3 | 30 | 80 | |
| | 1944 | 2400 | HIRA | 2003.0 | 2019.0 | III | G | 3 | 25X | 320 | |
| | | | HIRA | 2033.5 | 2038.0 | III | G | 3 | 25X | 800 | |
| | | | HIRA | 2054.5 | 2057.0 | III | G | 2 | 25X | 210 | |
| | 2055 | 2326 | CULG | 2055.0 | 2056.0 | III | G | 1 | 57X | 140 | |

# S O L A R  R A D I O  E M I S S I O N
## Spectral Observations

### AUGUST 2001

| OBSERVATION Start (UT) | OBSERVATION End (UT) | Sta | EVENT Start (UT) | EVENT End (UT) | EVENT Spectral Class | EVENT Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | FREQUENCY Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 02 | | HIRA | 2103.0 | 2105.5 | III | G | 3 | 25X | 800 | |
| | | CULG | 2104.0 | 2106.0 | III | G | 2 | 57X | 440 | |
| | | HIRA | 2121.5 | 2122.0 | III | B | 1 | 40 | 160 | |
| | | CULG | 2122.0 | 2203.0 | III | N | 1 | 57X | 260 | |
| | | HIRA | 2140.5 | 2144.0 | III | G | 1 | 30 | 500 | |
| | | HIRA | 2147.5 | 2150.0 | III | G | 1 | 25X | 400 | |
| | | HIRA | 2204.0 | 2204.5 | III | B | 1 | 110 | 500 | |
| | | HIRA | 2214.5 | 2215.0 | III | B | 2 | 25X | 120 | |
| | | CULG | 2215.0 | 2215.0 | III | B | 2 | 57X | 90 | |
| | | CULG | 2222.0 | 2224.0 | III | G | 3 | 57X | 180 | |
| | | HIRA | 2222.0 | 2224.0 | III | G | 3 | 25X | 280 | |
| | | HIRA | 2225.5 | 2226.0 | III | B | 1 | 60 | 170 | |
| | | CULG | 2251.0 | 2302.0 | III | G | 3 | 57X | 180 | |
| | | HIRA | 2251.0 | 2252.0 | III | B | 3 | 25X | 210 | |
| | | HIRA | 2254.5 | 2300.0 | III | G | 3 | 25X | 290 | |
| | | HIRA | 2301.0 | 2303.0 | III | G | 3 | 25X | 320 | |
| | | SGMR | 2301.0 | 2301.0 | III | | 1 | 30 | 70 | |
| | | CULG | 2325.0 | 2326.0 | III | G | 3 | 57X | 180 | |
| | | HIRA | 2325.0 | 2328.0 | III | G | 3 | 25X | 500 | |
| | | LEAR | 2325.0 | 0945.0 | III | N | 3 | 25 | 180 | |
| | | HIRA | 2338.5 | 2346.0 | III | G | 1 | 25X | 230 | |
| | | HIRA | 2351.5 | 2352.0 | III | B | 3 | 25X | 200 | |
| 03 | 0000 | 0942 HIRA | 0034.0 | 0036.5 | III | G | 2 | 40 | 210 | |
| | | HIRA | 0043.5 | 0044.0 | III | B | 1 | 90 | 210 | |
| | | HIRA | 0104.5 | 0107.0 | III | G | 2 | 25X | 320 | |
| | 0103 | 0235 CULG | 0105.0 | 0118.0 | III | GG | 3 | 57X | 700 | |
| | | HIRA | 0112.0 | 0118.5 | III | G | 3 | 25X | 900 | |
| | | CULG | 0133.0 | 0135.0 | III | G | 3 | 57X | 180 | |
| | | HIRA | 0133.0 | 0136.0 | III | G | 3 | 25X | 200 | |
| | | CULG | 0137.0 | 0141.0 | III | G | 2 | 57X | 150 | |
| | | CULG | 0137.0 | 0159.0 | III | N | 1 | 57X | 130 | |
| | | HIRA | 0140.0 | 0140.5 | III | B | 1 | 30 | 140 | |
| | | HIRA | 0243.0 | 0243.5 | III | B | 1 | 25X | 200 | |
| | | HIRA | 0303.0 | 0309.0 | III | G | 3 | 25X | 800 | |
| | | HIRA | 0336.0 | 0336.5 | III | B | 2 | 25X | 190 | |
| | | SVTO | 0406.0 | 0409.0 | III | | 2 | 25 | 158 | |
| | | HIRA | 0406.5 | 0407.0 | III | B | 3 | 25X | 320 | |
| | | HIRA | 0409.0 | 0409.5 | III | B | 2 | 25X | 300 | |
| | 0408 | 0715 CULG | 0409.0 | 0409.0 | III | B | 2 | 57X | 180 | |
| | | CULG | 0417.0 | 0600.0 | III | N | 1 | 57X | 160 | |
| | | HIRA | 0423.5 | 0424.0 | III | B | 1 | 25X | 180 | |
| | 0449 | 1727 ONDR | | | | | | | | |
| | 0459 | 1200 IZMI | 0506.2 | 0514.4 | III | GG | 2 | 45 | 180 | |
| | | IZMI | 0521.7 | 0523.4 | III | G | 2 | 25X | 70 | |
| | | SVTO | 0523.0 | 0948.0 | III | N | 3 | 25 | 180 | |
| | | IZMI | 0526.0 | 0526.2 | III | B | 2 | 45 | 115 | |
| | | HIRA | 0533.5 | 0534.0 | III | B | 1 | 30 | 120 | |
| | | IZMI | 0533.8 | 0535.2 | III | G | 2 | 25X | 140 | |
| | | HIRA | 0538.5 | 0542.0 | III | G | 3 | 25X | 470 | |
| | | IZMI | 0538.6 | 0540.1 | III | GG,FS | 2 | 25X | 155 | |
| | 0455 | 1750 BLEN | 0538.6 | 0538.9 | III | GG | 2 | 1250X | 1800 | |
| | | IZMI | 0541.0 | 0542.7 | III | GG | 2 | 25X | 270X | |
| | 0410 | 0715 CULG | 0542.0 | 0542.0 | III | G | 2 | 57X | 420 | |
| | | IZMI | 0548.6 | 0548.7 | III | B | 2 | 45 | 115 | |
| | 0550 | 1805 BLEN | | | | | | | | |
| | | IZMI | 0551.7 | 0600.5 | III | GG,C | 3 | 25X | 270X | |
| | | CULG | 0554.0 | 0600.0 | III | G | 3 | 57X | 180 | |
| | | HIRA | 0554.0 | 0559.0 | III | G | 3 | 25X | 540 | |
| | | CULG | 0651.0 | 0651.0 | III | B | 1 | 57X | 160 | |
| | | IZMI | 0651.3 | 0651.5 | III | B | 2 | 25X | 160 | |
| | | IZMI | 0653.9 | 0658.0 | III | GG,FS | 2 | 25X | 270X | |
| | | CULG | 0654.0 | 0658.0 | III | G | 3 | 57X | 520 | |
| | | HIRA | 0654.0 | 0658.0 | III | G | 3 | 25X | 700 | |
| | | CULG | 0709.0 | 0710.0 | III | G | 2 | 57X | 170 | |
| | | HIRA | 0709.0 | 0710.0 | III | B | 2 | 25X | 290 | |
| | | IZMI | 0709.2 | 0710.0 | III | GG | 2 | 25X | 270X | |
| | | IZMI | 0712.0 | 0714.1 | III | GG | 3 | 25X | 270X | |
| | | CULG | 0713.0 | 0714.0 | III | G | 2 | 57X | 180 | |

# SOLAR RADIO EMISSION
## Spectral Observations

## AUGUST 2001

| OBSERVATION Start (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 03 | | HIRA | 0713.5 | 0714.0 | III | B | 2 | 25X | 430 | |
| | | IZMI | 0718.7 | 0721.8 | III | GG,FS | 1 | 45 | 120 | |
| | | HIRA | 0744.5 | 0751.5 | III | G | 3 | 25X | 720 | |
| | | IZMI | 0744.5 | 0751.3 | III | GG | 2 | 25X | 270X | |
| | | LEAR | 0748.0 | 0750.0 | V | | 3 | 25 | 180 | |
| | | SVTO | 0748.0 | 0751.0 | V | | 3 | 25 | 180 | |
| | | IZMI | 0816.3 | 0819.8 | III | GG | 2 | 25X | 270X | |
| | | HIRA | 0817.0 | 0818.0 | III | B | 2 | 30 | 260 | |
| | | IZMI | 0834.6 | 0841.0 | III | GG,FS | 2 | 25X | 270 | |
| | | HIRA | 0835.5 | 0836.0 | III | B | 1 | 30 | 210 | |
| | | HIRA | 0856.5 | 0857.0 | III | B | 1 | 40 | 130 | |
| | | IZMI | 0856.5 | 0857.1 | III | GG | 2 | 25X | 160 | |
| | | IZMI | 0858.7 | 0859.9 | III | GG | 2 | 25X | 180 | |
| | | HIRA | 0859.0 | 0859.5 | III | B | 1 | 40 | 130 | |
| | | IZMI | 0919.1 | 0925.7 | III | GG,FS | 2 | 25X | 170 | |
| | | IZMI | 0936.5 | 0941.0 | III | GG,FS | 2 | 25X | 190 | |
| | | IZMI | 0947.1 | 0949.9 | III | GG,FS | 2 | 25X | 240 | |
| | | IZMI | 1018.6 | 1019.8 | III | GG,FS | 2 | 25X | 270X | |
| | | SVTO | 1019.0 | 1029.0 | V | | 2 | 25 | 180 | |
| | | IZMI | 1019.2 | 1019.6 | V | | 2 | 25X | 85 | |
| | | IZMI | 1024.2 | 1024.4 | III | G | 2 | 25X | 160 | |
| | | IZMI | 1026.3 | 1027.3 | III | GG,FS | 2 | 25X | 175 | |
| | | IZMI | 1029.7 | 1029.9 | III | G,FS | 1 | 25X | 95 | |
| | | SVTO | 1104.0 | 1219.0 | III | N | 2 | 25 | 180 | |
| | | IZMI | 1104.9 | 1105.4 | III | G | 2 | 25X | 150 | |
| | | IZMI | 1106.7 | 1108.6 | III | GG | 2 | 25X | 145 | |
| | | IZMI | 1111.1 | 1111.7 | III | G,FS | 1 | 45 | 95 | |
| | | IZMI | 1124.8 | 1125.8 | III | G | 2 | 25X | 155 | |
| | | IZMI | 1133.8 | 1141.8 | III | GG | 2 | 25X | 270X | |
| | | SGMR | 1137.0 | 1217.0 | III | N | 2 | 30 | 80 | |
| | | IZMI | 1148.4 | 1149.2 | III | GG | 2 | 25X | 190 | |
| | | IZMI | 1152.1 | 1155.6 | III | GG,FSC | 3 | 25X | 260 | |
| | | SVTO | 1153.0 | 1156.0 | V | | 2 | 25 | 180 | |
| | | HOLL | 1348.0 | 1349.0 | III | | 1 | 25 | 75 | |
| | | PALE | 1623.0 | 2134.0 | III | N | 1 | 25 | 180 | |
| | | HOLL | 1627.0 | 1806.0 | III | N | 1 | 25 | 141 | |
| | | SVTO | 1628.0 | 1702.0 | III | N | 2 | 25 | 180 | |
| | | SGMR | 1702.0 | 1702.0 | III | | 2 | 30 | 80 | |
| 1944 | 2400 | HIRA | | | | | | | | |
| 2055 | 2400 | CULG | | | | | | | | |
| | | HOLL | 2106.0 | 2107.0 | III | | 1 | 25 | 50 | |
| | | HOLL | 2249.0 | 0143.0 | III | N | 2 | 25 | 180 | |
| 04 | | LEAR | 0208.0 | 0209.0 | III | | 3 | 25 | 180 | |
| | | PALE | 0208.0 | 0209.0 | III | | 1 | 25 | 180 | |
| 0000 | 0715 | CULG | 0208.0 | 0209.0 | III | G | 3 | 57X | 200 | |
| 0000 | 0941 | HIRA | 0208.0 | 0209.0 | III | B | 3 | 30 | 250 | |
| | | CULG | 0337.0 | 0337.0 | III | G | 1 | 57X | 130 | |
| | | PALE | 0403.0 | 0404.0 | III | | 1 | 84U | 180U | |
| | | CULG | 0404.0 | 0405.0 | III | G | 1 | 57X | 300 | |
| | | HIRA | 0404.0 | 0404.0 | III | B | 2 | 80 | 330 | |
| | | LEAR | 0404.0 | 0405.0 | III | | 1 | 50 | 180 | |
| 0450 | 1725 | ONDR | | | | | | | | |
| 0504 | 1205 | IZMI | 0629.4 | 0629.6 | III | G | 1 | 200 | 270X | |
| | | IZMI | 0739.1 | 0739.2 | III | G | 1 | 45 | 90 | |
| | | HIRA | 0912.5 | 0913.0 | III | B | 2 | 140 | 210 | |
| | | IZMI | 0912.5 | 0912.9 | III | G,U | 2 | 140 | 270X | |
| | | IZMI | 1047.7 | 1049.0 | III | GG | 1 | 180 | 270X | |
| | | IZMI | 1051.2 | 1051.5 | III | G | 1 | 45 | 90 | |
| | | HOLL | 1454.0 | 1455.0 | III | | 1 | 25 | 85 | |
| | | SVTO | 1454.0 | 1455.0 | III | | 1 | 32U | 82U | |
| 0455 | 1805 | BLEN | 1802.9 | 1804.1 | III | GG,U | 1 | 300 | 600 | |
| 1945 | 2400 | HIRA | | | | | | | | |
| 2055 | 2400 | CULG | | | | | | | | |
| 05 0000 | 0715 | CULG | | | | | | | | |
| 0000 | 0940 | HIRA | | | | | | | | |
| 0451 | 1727 | ONDR | | | | | | | | |
| 0455 | 1805 | BLEN | 0509.1 | 0509.2 | III | B | 1 | 1200X | 2100 | |

# S O L A R  R A D I O  E M I S S I O N
## Spectral Observations

## AUGUST 2001

| OBSERVATION Day | Start (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 05 | 0450 | 1200 | IZMI | 0559.0U | 1200.0D | I | N | 1 | 60 | 270X | |
| | | | IZMI | 0834.7 | 0834.9 | III | B | 1 | 45 | 85 | |
| | | | IZMI | 0845.8 | 0846.0 | III | B | 1 | 45 | 95 | |
| | | | IZMI | 1008.2 | 1008.4 | III | B | 1 | 45 | 120 | |
| | | | IZMI | 1130.0U | 1200.0D | III | N | 1 | 45 | 95 | |
| | | | BLEN | 1215.3 | 1224.6 | III | G | 1 | 1200X | 2100 | |
| | 1946 | 2400 | HIRA | 2104.0 | 2104.5 | III | B | 1 | 50 | 150 | |
| | 2055 | 2400 | CULG | 2104.0 | 2105.0 | III | G | 1 | 57X | 160 | |
| | | | HOLL | 2133.0 | 2140.0 | III | | 1 | 25 | 50 | |
| | | | HIRA | 2133.5 | 2134.0 | III | B | 1 | 40 | 150 | |
| | | | CULG | 2134.0 | 2211.0 | III | N | 1 | 57X | 100 | |
| | | | HOLL | 2210.0 | 2221.0 | III | N | 1 | 25 | 84 | |
| | | | HIRA | 2220.5 | 2221.5 | III | B | 1 | 50 | 180 | |
| | | | CULG | 2221.0 | 2221.0 | III | B | 1 | 57X | 170 | |
| 06 | 0000 | 0715 | CULG | 0031.0 | 0035.0 | III | G | 1 | 57X | 180 | |
| | | | LEAR | 0033.0 | 0034.0 | III | | 1 | 92 | 180 | |
| | 0000 | 0939 | HIRA | 0034.0 | 0034.5 | III | B | 1 | 90 | 180 | |
| | | | HIRA | 0056.0 | 0058.5 | III | B | 1 | 100 | 190 | |
| | | | CULG | 0058.0 | 0058.0 | III | B | 1 | 57X | 160 | |
| | | | LEAR | 0208.0 | 0211.0 | III | | 1 | 25 | 180 | |
| | | | HIRA | 0208.5 | 0209.0 | III | B | 1 | 100 | 220 | |
| | | | CULG | 0209.0 | 0211.0 | III | G | 1 | 57X | 180 | |
| | | | LEAR | 0324.0 | 0328.0 | III | | 1 | 25 | 180 | |
| | | | CULG | 0325.0 | 0332.0 | III | G | 1 | 57X | 170 | |
| | | | HIRA | 0325.0 | 0328.5 | III | B | 1 | 90 | 180 | |
| | 0453 | 1743 | ONDR | | | | | | | | |
| | 0451 | 1200 | IZMI | 0516.2 | 0516.6 | III | G | 1 | 50 | 155 | |
| | | | IZMI | 0522.0 | 0522.1 | III | B,FS | 1 | 45 | 65 | |
| | | | IZMI | 0548.4 | 0548.8 | III | G,FS | 2 | 45 | 140 | |
| | | | IZMI | 0613.1 | 0614.6 | III | GG,FS | 2 | 45 | 160 | |
| | | | CULG | 0614.0 | 0615.0 | III | G | 1 | 57X | 140 | |
| | | | IZMI | 0709.0 | 0709.2 | III | B | 1 | 45 | 90 | |
| | | | IZMI | 0716.7 | 0716.9 | III | G,FS | 2 | 40 | 160 | |
| | | | IZMI | 0718.5 | 0718.6 | III | B | 1 | 45 | 90 | |
| | | | IZMI | 0721.6 | 0721.9 | III | G,FS | 1 | 45 | 90 | |
| | | | IZMI | 0745.5 | 0749.5 | III | GG,FS | 2 | 25X | 160 | |
| | | | HIRA | 0747.5 | 0748.0 | III | B | 1 | 90 | 140 | |
| | | | SVTO | 0749.0 | 0752.0 | III | | 1 | 28U | 65U | |
| | | | HIRA | 0752.0 | 0752.5 | III | B | 1 | 100 | 130 | |
| | | | IZMI | 0752.1 | 0752.6 | III | GG | 2 | 30 | 155 | |
| | | | IZMI | 0812.4 | 0812.6 | III | G | 1 | 45 | 70 | |
| | | | IZMI | 0826.7 | 0827.2 | III | G | 2 | 25X | 70 | |
| | | | IZMI | 0951.4 | 0951.7 | III | G | 1 | 45 | 90 | |
| | | | IZMI | 1004.0 | 1004.1 | III | B | 1 | 45 | 70 | |
| | | | SVTO | 1223.0 | 1223.0 | III | | 1 | 25 | 163 | |
| | 0455 | 1805 | BLEN | 1600.0X | 1815.0X | I | DC | 2 | 140 | 450 | |
| | | | PALE | 1624.0 | 0207.0 | CONT | | 1 | 25 | 180 | |
| | | | HOLL | 1643.0 | 1643.0 | III | | 1 | 25 | 51 | |
| | | | SVTO | 1643.0 | 1643.0 | III | | 1 | 25 | 58 | |
| | 1947 | 2400 | HIRA | | | | | | | | |
| | 2055 | 2400 | CULG | 2311.0 | 2400.0D | I | S,C | 1 | 80 | 180 | |
| | | | LEAR | 2312.0 | 0947.0 | CONT | | 1 | 62 | 180 | |
| | | | HOLL | 2349.0 | 0152.0 | CONT | | 1 | 106 | 175 | |
| 07 | 0000 | 0715 | CULG | 0000.0E | 0547.0 | I | S,C | 1 | 80 | 180 | |
| | | | SVTO | 0412.0 | 1736.0 | CONT | | 1 | 25 | 180 | |
| | 0454 | 1742 | ONDR | | | | | | | | |
| | 0506 | 1200 | IZMI | 0506.0E | 1200.0D | I | S,C | 2 | 120 | 270X | |
| | | | IZMI | 0515.6 | 0516.0 | III | G | 1 | 45 | 90 | |
| | | | IZMI | 0605.9 | 0609.5 | III | G | 2 | 25X | 90 | |
| | | | LEAR | 0606.0 | 0609.0 | III | | 1 | 25 | 41 | |
| | | | SVTO | 0606.0 | 0607.0 | III | | 1 | 25 | 52 | |
| | | | CULG | 0646.0 | 0646.0 | III | B | 1 | 57X | 140 | |
| | | | IZMI | 0646.2 | 0646.6 | III | B | 1 | 40 | 90 | |
| | | | IZMI | 0727.4 | 0728.1 | III | G | 1 | 45 | 90 | |
| | | | IZMI | 0734.4 | 0734.7 | III | B | 1 | 45 | 95 | |
| | | | LEAR | 0815.0 | 0816.0 | III | | 2 | 25 | 118 | |
| | | | SVTO | 0815.0 | 0816.0 | III | | 2 | 25 | 76 | |

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| Day | OBSERVATION Start (UT) | OBSERVATION End (UT) | Sta | EVENT Start (UT) | EVENT End (UT) | EVENT Spectral Class | EVENT Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | FREQUENCY Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 07 | | | IZMI | 0815.5 | 0818.0 | III | G,C | 2 | 25X | 152 | |
| | 0000 | 0938 | HIRA | 0815.5 | 0816.0 | III | B | 1 | 25X | 170 | |
| | | | IZMI | 0815.7 | 0816.2 | V | | 2 | 25X | 32 | |
| | | | IZMI | 0830.4 | 0830.7 | III | G,FS | 1 | 45 | 60 | |
| | | | IZMI | 0913.9 | 0914.3 | III | G | 2 | 45 | 95 | |
| | | | IZMI | 1013.2 | 1013.6 | III | G | 1 | 45 | 95 | |
| | | | IZMI | 1023.8 | 1024.0 | III | B | 1 | 45 | 70 | |
| | | | IZMI | 1033.7 | 1033.8 | III | B | 1 | 45 | 90 | |
| | | | IZMI | 1113.6 | 1115.1 | III | G | 1 | 45 | 160 | |
| | | | IZMI | 1119.0 | 1119.4 | III | G | 1 | 25X | 90 | |
| | | | IZMI | 1124.5 | 1124.8 | III | G | 2 | 50 | 160 | |
| | | | IZMI | 1133.3 | 1134.3 | III | G | 1 | 45 | 85 | |
| | 0455 | 1805 | BLEN | 1441.7 | 1445.9 | DCIM | C | 2 | 2200 | 4000X | |
| | | | BLEN | 1600.0X | 1815.0X | I | N | 1 | 220 | 350 | |
| | | | PALE | 1838.0 | 2340.0 | III | N | 1 | 25 | 180 | |
| | | | HOLL | 1853.0 | 1854.0 | III | | 1 | 25 | 60 | |
| | | | SGMR | 1853.0 | 1854.0 | III | | 1 | 30 | 80 | |
| | 1948 | 2400 | HIRA | | | | | | | | |
| | 2055 | 2400 | CULG | | | | | | | | |
| 08 | 0000 | 0937 | HIRA | | | | | | | | |
| | 0000 | 0648 | CULG | 0130.0 | 0227.0 | I | S | 1 | 100 | 170 | |
| | | | CULG | 0249.0 | 0315.0 | III | N | 1 | 57X | 170 | |
| | | | CULG | 0315.0 | 0540.0 | I | S | 1 | 110 | 180 | |
| | 0455 | 1741 | ONDR | | | | | | | | |
| | 0505 | 1200 | IZMI | 0505.0E | 1200.0D | I | S | 2 | 45 | 270X | |
| | | | LEAR | 0614.0 | 0615.0 | III | | 1 | 25 | 46 | |
| | | | SVTO | 0614.0 | 0615.0 | III | | 1 | 25 | 57 | |
| | | | IZMI | 0614.7 | 0616.0 | III | G | 1 | 25 | 80 | |
| | | | IZMI | 0707.3 | 0709.6 | III | GG | 1 | 25X | 95 | |
| | | | SVTO | 0934.0 | 1735.0 | CONT | | 1 | 25U | 82U | |
| | | | IZMI | 1034.1 | 1034.4 | III | G | 2 | 45 | 95 | |
| | 0510 | 1750 | BLEN | 1600.0X | 1815.0X | I | N | 1 | 220 | 350 | |
| | | | PALE | 1625.0 | 0431.0 | CONT | | 1 | 25 | 180 | |
| | 1948 | 2400 | HIRA | 2119.5 | 2120.5 | III | B | 1 | 80 | 140 | |
| | 2055 | 2400 | CULG | 2120.0 | 2120.0 | III | B | 1 | 70 | 160 | |
| | | | HOLL | 2232.0 | 2233.0 | III | | 1 | 25 | 62 | |
| | | | PALE | 2232.0 | 2233.0 | III | | 1 | 25 | 54 | |
| | | | CULG | 2302.0 | 2302.0 | III | B | 1 | 57X | 100 | |
| | | | HOLL | 2302.0 | 2302.0 | III | | 1 | 25 | 60 | |
| | | | PALE | 2302.0 | 2302.0 | III | | 1 | 25 | 62 | |
| 09 | | | HOLL | 0110.0 | 0111.0 | III | | 1 | 25 | 86 | |
| | | | LEAR | 0110.0 | 0111.0 | III | | 2 | 25 | 142 | |
| | 0000 | 0936 | HIRA | 0110.5 | 0111.5 | III | B | 1 | 25X | 120 | |
| | 0000 | 0715 | CULG | 0111.0 | 0112.0 | III | G | 1 | 57X | 150 | |
| | | | HIRA | 0435.5 | 0436.0 | III | B | 1 | 80 | 200 | |
| | 0450 | 0800 | IZMI | 0506.8 | 0508.5 | III | G | 1 | 45 | 110 | |
| | | | LEAR | 0507.0 | 0507.0 | III | | 1 | 62 | 110 | |
| | | | LEAR | 0542.0 | 0544.0 | III | | 2 | 25 | 180 | |
| | | | SVTO | 0542.0 | 0544.0 | III | | 2 | 25 | 157 | |
| | | | HIRA | 0542.5 | 0543.5 | III | B | 1 | 25X | 160 | |
| | | | IZMI | 0542.8 | 0543.6 | III | G | 2 | 25X | 180 | |
| | | | IZMI | 0542.9 | 0544.31 | V | | 2 | 25X | 65 | |
| | | | CULG | 0543.0 | 0543.0 | III | B | 1 | 57X | 170 | |
| | | | CULG | 0547.0 | 0715.0D | I | S | 1 | 70 | 170 | |
| | | | IZMI | 0603.0U | 0800.0D | I | S | 2 | 70 | 220 | |
| | | | IZMI | 0606.2 | 0606.3 | III | G | 1 | 130 | 230 | |
| | | | IZMI | 0630.0U | 0640.0U | III | N,FS | 1 | 45 | 95 | |
| | | | IZMI | 0702.7 | 0702.9 | III | B | 1 | 45 | 95 | |
| | | | IZMI | 0706.3 | 0706.5 | III | B | 2 | 45 | 90 | |
| | | | IZMI | 0712.7 | 0713.0 | III | G,HARM | 2 | 40 | 95 | |
| | 0821 | 1200 | IZMI | 0821.0E | 1200.0 | I | N | 1 | 140 | 270X | |
| | | | IZMI | 0842.8 | 0843.0 | III | G | 1 | 125 | 270 | |
| | | | IZMI | 0851.6 | 0851.8 | III | B | 1 | 40 | 70 | |
| | | | IZMI | 0856.7 | 0856.9 | III | B | 1 | 40 | 90 | |
| | | | IZMI | 0910.2 | 0910.6 | III | B | 2 | 40 | 90 | |
| | | | IZMI | 0937.4 | 0937.9 | III | G | 2 | 25X | 80 | |
| | | | IZMI | 0948.0 | 0948.4 | III | B | 2 | 30 | 65 | |

# SOLAR RADIO EMISSION
## Spectral Observations

## AUGUST 2001

| OBSERVATION Start (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 09 | | IZMI | 0952.0 | 0952.2 | III | G,HARM | 2 | 45 | 90 | |
| | | IZMI | 1009.1 | 1010.2 | III | G,FS | 2 | 25X | 90 | |
| | | IZMI | 1038.1 | 1038.3 | III | B,FS | 2 | 50 | 90 | |
| | | SVTO | 1042.0 | 1108.0 | III | N | 1 | 25 | 127 | |
| | | IZMI | 1042.2 | 1042.8 | III | B | 1 | 40 | 90 | |
| | | IZMI | 1056.6 | 1057.8 | III | G | 1 | 45 | 90 | |
| 0420 | 1740 | ONDR | 1118.2 | 1119.3 | CONT | | 1 | 2273 | 4500X | |
| 0510 | 1750 | BLEN | 1118.6 | 1119.6 | DCIM | C | 2 | 2000 | 4000X | |
| | | HOLL | 1513.0 | 1526.0 | III | N | 1 | 25 | 145 | |
| | | SVTO | 1513.0 | 1526.0 | III | N | 1 | 25 | 160 | |
| | | SGMR | 1520.0 | 1526.0 | III | | 2 | 30 | 60 | |
| | | BLEN | 1600.0X | 1750.0X | I | N | 1 | 180 | 320 | |
| 1949 | 2400 | HIRA | 2250.0 | 2250.5 | III | B | 1 | 25X | 150 | |
| 2055 | 2400 | CULG | 2250.0 | 2250.0 | III | B | 1 | 57X | 120 | |
| | | CULG | 2345.0 | 2345.0 | III | B | 1 | 57X | 90 | |
| 10 0000 | 0715 | CULG | 0041.0 | 0125.0 | I | S | 1 | 110 | 170 | |
| | | CULG | 0107.0 | 0107.0 | III | B | 1 | 57X | 90 | |
| | | PALE | 0120.0 | 0122.0 | III | | 1 | 25U | 64U | |
| | | CULG | 0121.0 | 0121.0 | III | G | 1 | 57X | 90 | |
| | | LEAR | 0121.0 | 0121.0 | III | | 1 | 25 | 95 | |
| 0000 | 0935 | HIRA | 0121.0 | 0121.5 | III | B | 2 | 25X | 110 | |
| | | CULG | 0131.0 | 0134.0 | III | G | 2 | 57X | 1300 | |
| | | PALE | 0131.0 | 0138.0 | II | | 1 | 34 | 75 | ESS 1400 |
| | | HIRA | 0131.5 | 0134.0 | III | G | 2 | 80 | 1900 | |
| | | CULG | 0134.0 | 0139.0 | III | G | 1 | 57X | 180 | |
| | | CULG | 0136.0 | 0138.0 | II | FN | 3 | 57X | 100 | |
| | | CULG | 0136.0 | 0138.0 | II | SH | 2 | 100 | 180 | |
| | | HIRA | 0136.0 | 0138.0 | II | | 2 | 50 | 110 | |
| | | HIRA | 0136.0 | 0138.0 | II | | 2 | 90 | 190 | |
| | | LEAR | 0136.0 | 0138.0 | II | | 1 | 50 | 180 | ESS 1205 |
| | | CULG | 0143.0 | 0143.0 | II | UE | 1 | 65 | 90 | |
| | | CULG | 0303.0 | 0305.0 | III | G | 1 | 57X | 80 | |
| | | CULG | 0407.0 | 0410.0 | III | G | 2 | 57X | 180 | |
| | | HIRA | 0407.0 | 0409.0 | III | G | 2 | 25X | 180 | |
| | | LEAR | 0407.0 | 0409.0 | III | | 1 | 25 | 180 | |
| | | PALE | 0407.0 | 0408.0 | III | | 1 | 25U | 86U | |
| | | CULG | 0421.0 | 0424.0 | III | G | 1 | 57X | 90 | |
| | | CULG | 0455.0 | 0459.0 | III | G | 3 | 57X | 200 | |
| | | HIRA | 0455.0 | 0457.5 | III | B | 3 | 25X | 240 | |
| | | LEAR | 0455.0 | 0458.0 | V | | 3 | 25 | 180 | |
| | | SVTO | 0455.0 | 0456.0 | III | | 2 | 25 | 180 | |
| | | HIRA | 0458.0 | 0458.5 | III | B | 1 | 25X | 90 | |
| 0510 | 1750 | BLEN | | | | | | | | |
| | | SVTO | 0609.0 | 0615.0 | III | | 1 | 25 | 119 | |
| 0544 | 1200 | IZMI | 0609.1 | 0616.0 | III | GG,FS | 2 | 25 | 150 | |
| | | CULG | 0610.0 | 0616.0 | III | G | 1 | 57X | 150 | |
| | | LEAR | 0610.0 | 0616.0 | III | | 1 | 25 | 180 | |
| | | IZMI | 0613.0 | 0613.2 | III | G | 2 | 25X | 150 | |
| 0622 | 1739 | ONDR | | | | | | | | |
| | | IZMI | 0631.0 | 0631.1 | III | G | 1 | 200 | 270X | |
| | | CULG | 0632.0 | 0632.0 | III | B | 1 | 57X | 90 | |
| | | LEAR | 0633.0 | 0712.0 | III | N | 2 | 25 | 180 | |
| | | SVTO | 0633.0 | 0653.0 | III | N | 2 | 25 | 121 | |
| | | IZMI | 0633.3 | 0633.5 | III | G | 2 | 40 | 105 | |
| | | IZMI | 0636.0 | 0637.0 | III | G | 1 | 200 | 270X | |
| | | CULG | 0641.0 | 0643.0 | III | G | 3 | 57X | 120 | |
| | | HIRA | 0641.5 | 0642.5 | III | B | 2 | 30 | 90 | |
| | | IZMI | 0641.5 | 0642.7 | III | G,U | 2 | 25X | 130 | |
| | | CULG | 0653.0 | 0653.0 | III | B | 1 | 57X | 110 | |
| | | IZMI | 0653.1 | 0653.3 | III | B | 2 | 40 | 120 | |
| | | IZMI | 0723.5 | 0723.9 | III | G | 1 | 160 | 270 | |
| | | HIRA | 0803.0 | 0803.5 | III | B | 2 | 30 | 130 | |
| | | IZMI | 0803.0 | 0803.5 | III | G,C | 2 | 25X | 160 | |
| | | IZMI | 0803.0 | 0803.5 | V | G | 2 | 25X | 60 | |
| | | LEAR | 0803.0 | 0803.0 | III | | 2 | 25 | 180 | |
| | | SVTO | 0803.0 | 0803.0 | III | | 2 | 25 | 135 | |
| | | IZMI | 0807.8 | 0807.9 | III | B,FS | 1 | 45 | 95 | |
| | | HIRA | 0825.0 | 0826.0 | III | G | 2 | 25X | 170 | |

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| OBSERVATION Start (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | | IZMI | 0825.0 | 0826.6 | III | GG,C | 2 | 25X | 240 | |
| | | LEAR | 0825.0 | 0827.0 | V | | 2 | 25 | 180 | |
| | | SVTO | 0825.0 | 0959.0 | III | N | 2 | 25 | 162 | |
| | | LEAR | 0831.0 | 0907.0 | III | N | 2 | 25 | 180 | |
| | | HIRA | 0831.5 | 0832.5 | III | G | 2 | 30 | 210 | |
| | | IZMI | 0831.5 | 0832.9 | III | GG,FS | 2 | 25X | 270X | |
| | | IZMI | 0836.3 | 0837.3 | III | GG,FS | 2 | 25X | 270X | |
| | | IZMI | 0841.8 | 0842.0 | III | B | 1 | 25 | 95 | |
| | | IZMI | 0904.0 | 0905.6 | III | GG,FS | 2 | 25X | 145 | |
| | | IZMI | 0906.5 | 0909.5 | III | GG,FS | 2 | 45X | 120 | |
| | | IZMI | 0918.8 | 0921.4 | III | GG,FS | 1 | 25X | 95 | |
| | | IZMI | 0930.6 | 0931.3 | III | G | 1 | 25X | 95 | |
| | | SVTO | 1037.0 | 1038.0 | III | | 1 | 25 | 79 | |
| | | IZMI | 1037.2 | 1038.0 | III | G | 2 | 25X | 160X | |
| | | IZMI | 1113.0 | 1113.9 | III | G | 2 | 25X | 175 | |
| | | SVTO | 1113.0 | 1113.0 | III | | 1 | 25 | 154 | |
| | | IZMI | 1129.0 | 1129.2 | III | G | 1 | 25X | 70 | |
| | | SVTO | 1143.0 | 1146.0 | III | | 1 | 25 | 120 | |
| | | IZMI | 1143.2 | 1143.7 | III | G | 2 | 25X | 95 | |
| | | IZMI | 1145.6 | 1146.0 | III | G | 2 | 25X | 95 | |
| | | SGMR | 1219.0 | 1220.0 | III | | 1 | 30 | 55 | |
| | | SVTO | 1219.0 | 1222.0 | III | | 1 | 25 | 169 | |
| | | SVTO | 1325.0 | 1325.0 | III | | 1 | 33 | 83 | |
| | | HOLL | 2041.0 | 2230.0 | III | N | 1 | 25 | 67 | |
| | | PALE | 2041.0 | 2205.0 | III | N | 1 | 25 | 80 | |
| | | SGMR | 2055.0 | 2056.0 | III | | 1 | 30 | 80 | |
| 1950 | 2400 | HIRA | 2055.0 | 2056.0 | III | B | 1 | 25X | 190 | |
| 2055 | 2400 | CULG | 2055.0 | 2056.0 | III | G | 1 | 57X | 150 | |
| | | CULG | 2101.0 | 2101.0 | III | B | 1 | 57X | 100 | |
| | | CULG | 2152.0 | 2205.0 | III | G | 1 | 57X | 100 | |
| | | HOLL | 2301.0 | 2301.0 | III | | 1 | 25 | 57 | |
| | | PALE | 2301.0 | 2301.0 | III | | 1 | 25U | 49U | |
| | | CULG | 2339.0 | 2339.0 | III | B | 1 | 57X | 120 | |
| | | LEAR | 2339.0 | 2339.0 | III | | 1 | 25 | 110 | |
| 11 | | PALE | 0005.0 | 0356.0 | III | N | 3 | 25 | 180 | |
| | | LEAR | 0016.0 | 0017.0 | III | | 1 | 25 | 123 | |
| 0000 | 0604 | CULG | 0017.0 | 0017.0 | III | B | 1 | 57X | 100 | |
| | | CULG | 0100.0 | 0102.0 | III | G | 2 | 57X | 140 | |
| | | HOLL | 0100.0 | 0102.0 | III | | 1 | 25 | 126 | |
| | | LEAR | 0100.0 | 0326.0 | III | N | 3 | 25 | 180 | |
| 0000 | 0934 | HIRA | 0101.0 | 0101.5 | III | B | 3 | 25X | 120 | |
| | | CULG | 0106.0 | 0107.0 | III | G | 1 | 57X | 150 | |
| | | CULG | 0115.0 | 0122.0 | III | GG | 2 | 57X | 460 | |
| | | HOLL | 0116.0 | 0119.0 | III | | 1 | 25 | 180 | |
| | | HIRA | 0116.5 | 0120.0 | III | G | 2 | 25X | 200 | |
| | | LEAR | 0117.0 | 0121.0 | V | | 3 | 25 | 180 | |
| | | CULG | 0220.0 | 0220.0 | III | B | 1 | 57X | 80 | |
| | | CULG | 0224.0 | 0224.0 | III | B | 1 | 130 | 180 | |
| | | HIRA | 0224.0 | 0224.5 | III | B | 1 | 120 | 200 | |
| | | LEAR | 0412.0 | 0828.0 | CONT | | 1 | 77 | 180 | |
| | | SVTO | 0429.0 | 0553.0 | CONT | | 1 | 78 | 180 | |
| | | CULG | 0430.0 | 0449.0 | I | S | 1 | 80 | 180 | |
| | | CULG | 0442.0 | 0523.0 | III | N | 1 | 57X | 130 | |
| | | IZMI | 0442.0 | 0442.7 | III | G | 2 | 45 | 95U | |
| 0500 | 1200 | IZMI | 0500.0E | 1200.0D | I | N | 2 | 45 | 270X | |
| 0622 | 1738 | ONDR | | | | | | | | |
| | | IZMI | 0634.2 | 0634.3 | III | B | 1 | 45 | 90 | |
| | | IZMI | 0704.5 | 0706.8 | III | G | 1 | 100 | 160 | |
| | | SVTO | 0936.0 | 0936.0 | III | | 1 | 28U | 46U | |
| | | IZMI | 1001.8 | 1004.9 | III | GG,C | 2 | 25X | 150 | |
| | | SVTO | 1002.0 | 1004.0 | V | | 2 | 25 | 148 | |
| | | SVTO | 1004.0 | 1732.0 | CONT | | 1 | 25 | 180 | |
| | | IZMI | 1154.0 | 1154.5 | III | G,U | 2 | 25X | 170 | |
| | | HOLL | 1558.0 | 1604.0 | III | | 1 | 25 | 85 | |
| 0515 | 1750 | BLEN | 1600.0X | 1750.0X | I | N | 1 | 180 | 350 | |
| 1951 | 2400 | HIRA | 2124.5 | 2125.0 | III | B | 1 | 50 | 180 | |
| 12 | 0000 | 0933 | HIRA | 0229.5 | 0230.0 | III | B | 1 | 200 | 320 | |

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| OBSERVATION Start (UT) | OBSERVATION End (UT) | Sta | EVENT Start (UT) | EVENT End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | FREQUENCY Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | | HIRA | 0330.5 | 0331.0 | III | B | 1 | 200 | 390 | |
| | | HIRA | 0337.0 | 0337.5 | III | B | 1 | 80 | 230 | |
| 0454 | 1200 | IZMI | 0506.0 | 0506.1 | III | B | 1 | 160 | 270 | |
| | | IZMI | 0507.9 | 0508.5 | III | G | 2 | 120 | 270X | |
| | | HIRA | 0508.0 | 0508.5 | III | B | 1 | 130 | 270 | |
| | | IZMI | 0513.8 | 0514.1 | III | B | 1 | 40 | 90 | |
| | | IZMI | 0541.1 | 0541.4 | III | B | 1 | 45 | 90 | |
| | | IZMI | 0559.0 | 0559.7 | III | G | 2 | 40 | 150 | |
| | | LEAR | 0559.0 | 0559.0 | III | | 1 | 25 | 132 | |
| | | SVTO | 0559.0 | 0559.0 | III | | 1 | 25 | 83 | |
| | | IZMI | 0612.7 | 0613.0 | III | B | 1 | 45 | 95 | |
| 0623 | 1737 | ONDR | | | | | | | | |
| | | IZMI | 0629.4 | 0630.2 | III | GG | 2 | 45 | 155 | |
| | | IZMI | 0642.1 | 0642.4 | III | G | 1 | 75 | 170 | |
| | | HIRA | 0646.0 | 0646.5 | III | B | 1 | 50 | 230 | |
| | | IZMI | 0646.1 | 0646.5 | III | G | 2 | 45 | 215 | |
| | | IZMI | 0704.4 | 0704.7 | III | G,HARM | 2 | 45 | 155 | |
| | | IZMI | 0731.5 | 0732.3 | III | G | 2 | 35 | 270X | |
| | | IZMI | 0733.6 | 0737.4 | III | GG | 2 | 25X | 270X | |
| | | HIRA | 0734.0 | 0736.0 | III | G | 2 | 30 | 220 | |
| | | IZMI | 0734.0 | 0736.8 | CONT | | 2 | 25X | 160 | |
| | | LEAR | 0734.0 | 0736.0 | V | | 2 | 25 | 180 | |
| | | SVTO | 0734.0 | 0736.0 | III | | 2 | 25 | 180 | |
| | | SVTO | 0742.0 | 0742.0 | III | | 1 | 25 | 49 | |
| | | IZMI | 0742.4 | 0742.6 | III | B | 1 | 25X | 90 | |
| | | IZMI | 0743.6 | 0745.5 | III | GG | 2 | 190 | 270X | |
| | | IZMI | 0832.1 | 0832.4 | III | B | 1 | 40 | 70 | |
| | | IZMI | 0902.2 | 0902.4 | III | B | 1 | 25 | 240 | |
| | | HIRA | 0905.0 | 0909.0 | III | G | 1 | 50 | 300 | |
| | | LEAR | 0905.0 | 0909.0 | III | | 1 | 25 | 180 | |
| | | IZMI | 0905.3 | 0909.8 | III | GG,C | 2 | 25X | 270X | |
| | | SVTO | 0907.0 | 0909.0 | III | | 1 | 25 | 180 | |
| | | IZMI | 0923.0 | 0923.9 | III | G | 2 | 25X | 190 | |
| | | SVTO | 0923.0 | 0923.0 | III | | 1 | 25 | 81 | |
| | | IZMI | 1103.9 | 1104.5 | III | G | 2 | 45 | 160 | |
| | | IZMI | 1108.2 | 1110.0 | III | G | 1 | 45 | 95 | |
| | | IZMI | 1122.9 | 1123.4 | III | G | 2 | 45 | 95 | |
| | | HOLL | 1512.0 | 1512.0 | III | | 1 | 25 | 71 | |
| | | HOLL | 1548.0 | 1550.0 | III | | 1 | 25 | 66 | |
| | | SGMR | 1549.0 | 1550.0 | III | | 1 | 30 | 55 | |
| | | SVTO | 1549.0 | 1550.0 | III | | 1 | 25 | 180 | |
| 0515 | 1750 | BLEN | 1600.0X | 1750.0X | I | N | 1 | 270 | 350 | |
| | | BLEN | 1710.2 | 1712.3 | III | G,S | 2 | 200 | 500 | |
| | | PALE | 1903.0 | 1908.0 | V | | 1 | 25 | 142 | |
| | | SGMR | 1904.0 | 1908.0 | V | | 2 | 30 | 80 | |
| 1952 | 2400 | HIRA | 2043.5 | 2044.0 | III | B | 1 | 60 | 210 | |
| | | HIRA | 2236.5 | 2238.5 | III | G | 1 | 40 | 160 | |
| | | LEAR | 2325.0 | 2331.0 | III | | 1 | 25 | 160 | |
| | | HIRA | 2330.5 | 2331.0 | III | B | 2 | 60 | 250 | |
| 13 | | LEAR | 0033.0 | 0330.0 | III | N | 1 | 25 | 180 | |
| | | PALE | 0106.0 | 0106.0 | III | | 1 | 25 | 76 | |
| 0100 | 0715 | CULG | 0106.0 | 0107.0 | III | G | 1 | 57X | 160 | |
| | | HOLL | 0115.0 | 0116.0 | III | | 1 | 25 | 92 | |
| | | CULG | 0116.0 | 0117.0 | III | G | 3 | 57X | 160 | |
| | | PALE | 0116.0 | 0118.0 | III | | 1 | 25 | 91 | |
| 0000 | 0932 | HIRA | 0116.0 | 0117.0 | III | B | 2 | 50 | 120 | |
| | | CULG | 0230.0 | 0233.0 | III | G | 1 | 57X | 170 | |
| | | CULG | 0421.0 | 0423.0 | III | G | 1 | 57X | 170 | |
| | | HIRA | 0421.0 | 0422.0 | III | B | 1 | 25X | 300 | |
| | | LEAR | 0421.0 | 0422.0 | III | | 1 | 25 | 180 | |
| | | PALE | 0421.0 | 0421.0 | III | | 1 | 25 | 180 | |
| 0450 | 1200 | IZMI | 0509.6 | 0509.7 | III | B | 1 | 60 | 160 | |
| | | IZMI | 0514.5 | 0514.8 | III | G | 1 | 45 | 90 | |
| | | HIRA | 0524.0 | 0525.0 | III | G | 1 | 140 | 400 | |
| | | IZMI | 0524.3 | 0525.3 | III | G | 2 | 160 | 270X | |
| | | IZMI | 0526.3 | 0526.5 | III | B | 1 | 45 | 95 | |
| | | IZMI | 0530.7 | 0531.1 | I | GG,DC | 2 | 60 | 95 | |
| | | CULG | 0550.0 | 0554.0 | UNCLF | | 1 | 57X | 80 | |

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| Day | OBSERVATION Start (UT) | OBSERVATION End (UT) | Sta | EVENT Start (UT) | EVENT End (UT) | EVENT Spectral Class | EVENT Event Remarks | EVENT Int (1-3) | FREQUENCY Lower (MHz) | FREQUENCY Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | | | IZMI | 0550.5 | 0553.0 | II | | 1 | 55 | 90 | |
| | 0629 | 1736 | ONDR | | | | | | | | |
| | | | IZMI | 0650.0 | 0650.4 | III | B | 1 | 25X | 65 | |
| | | | SVTO | 0859.0 | 0902.0 | III | | 1 | 25 | 48 | |
| | | | IZMI | 0859.5 | 0859.8 | III | B | 1 | 25X | 90 | |
| | | | IZMI | 0900.6 | 0901.1 | III | G | 1 | 25X | 80 | |
| | | | IZMI | 1046.2 | 1046.4 | III | B,RS | 2 | 50 | 70 | |
| | | | HOLL | 1529.0 | 1529.0 | III | | 1 | 25 | 75 | |
| | | | SGMR | 1529.0 | 1529.0 | III | | 1 | 30 | 50 | |
| | | | SVTO | 1529.0 | 1529.0 | III | | 1 | 25 | 81 | |
| | 0515 | 1750 | BLEN | 1600.0X | 1750.0X | I | N | 1 | 250 | 500 | |
| | | | HOLL | 1816.0 | 1817.0 | III | | 1 | 25 | 164 | |
| | | | PALE | 1816.0 | 1817.0 | III | | 1 | 25 | 130 | |
| | | | SGMR | 1816.0 | 1818.0 | III | | 1 | 30 | 70 | |
| | 1953 | 2400 | HIRA | 2041.5 | 2042.0 | III | B | 1 | 60 | 140 | |
| | 2050 | 2400 | CULG | | | | | | | | |
| 14 | 0000 | 0715 | CULG | | | | | | | | |
| | 0000 | 0930 | HIRA | 0105.0 | 0105.5 | III | B | 1 | 120 | 220 | |
| | | | LEAR | 0619.0 | 0620.0 | III | | 1 | 25 | 39 | |
| | | | SVTO | 0619.0 | 0620.0 | III | | 1 | 25 | 48 | |
| | | | ONDR | 0938.1 | 0947.5 | DCIM | GG | 1 | 800X | 2000X | |
| | 0503 | 1734 | ONDR | 0938.1 | 0945.1 | DCIM | G | 1 | 2000X | 4500X | |
| | 0515 | 1750 | BLEN | 0938.2 | 0944.4 | III | GG,RS | 3 | 1250X | 4000X | |
| | 0450 | 1200 | IZMI | 1039.4 | 1039.4 | III | B | 2 | 45 | 95 | |
| | | | IZMI | 1144.7 | 1200.0D | III | N | 2 | 25X | 160 | |
| | | | SVTO | 1145.0 | 1728.0 | III | N | 1 | 25 | 125 | |
| | | | SGMR | 1149.0 | 1149.0 | III | | 1 | 30 | 55 | |
| | | | IZMI | 1149.4 | 1200.0D | CONT | | 1 | 25X | 95U | |
| | | | IZMI | 1154.0 | 1201.0U | II | FS | 2 | 60 | 95U | |
| | | | HOLL | 2055.0 | 2056.0 | III | | 1 | 25U | 86U | |
| | | | PALE | 2055.0 | 2057.0 | III | | 1 | 25 | 94 | |
| | | | SGMR | 2055.0 | 2056.0 | III | | 1 | 30 | 80 | |
| | 1954 | 2400 | HIRA | 2055.0 | 2056.0 | III | B | 2 | 25X | 120 | |
| | 2050 | 2400 | CULG | 2055.0 | 2055.0 | III | B | 3 | 57X | 160 | |
| | | | HIRA | 2107.5 | 2108.0 | III | B | 1 | 90 | 210 | |
| | | | CULG | 2108.0 | 2108.0 | III | B | 1 | 70 | 160 | |
| | | | HIRA | 2212.0 | 2213.0 | III | B | 1 | 50 | 290 | |
| 15 | 0000 | 0720 | CULG | 0058.0 | 0058.0 | III | B | 1 | 57X | 75 | |
| | | | CULG | 0116.0 | 0116.0 | III | B | 1 | 57X | 90 | |
| | | | LEAR | 0116.0 | 0116.0 | III | | 1 | 25 | 50 | |
| | | | CULG | 0208.0 | 0208.0 | III | B | 1 | 57X | 80 | |
| | | | CULG | 0252.0 | 0252.0 | III | G | 1 | 57X | 80 | |
| | | | LEAR | 0349.0 | 0350.0 | III | | 1 | 25 | 45 | |
| | | | LEAR | 0459.0 | 0500.0 | III | | 1 | 25 | 44 | |
| | 0504 | 1200 | IZMI | 0530.8 | 0530.9 | III | B | 1 | 40 | 90 | |
| | | | IZMI | 0535.7 | 0536.4 | III | G | 1 | 45 | 90 | |
| | | | CULG | 0602.0 | 0603.0 | III | G | 1 | 57X | 90 | |
| | | | LEAR | 0602.0 | 0603.0 | III | | 1 | 56 | 95 | |
| | | | SVTO | 0602.0 | 0603.0 | III | | 1 | 25U | 83U | |
| | | | IZMI | 0602.4 | 0603.0 | III | G | 2 | 40 | 95 | |
| | | | LEAR | 0813.0 | 0814.0 | III | | 1 | 41 | 124 | |
| | | | SVTO | 0813.0 | 0814.0 | III | | 1 | 25U | 83U | |
| | | | IZMI | 0813.6 | 0814.4 | III | G | 2 | 25X | 200 | |
| | 0000 | 0929 | HIRA | 0814.0 | 0814.5 | III | B | 1 | 40 | 120 | |
| | | | SVTO | 0902.0 | 0905.0 | III | | 1 | 25 | 53 | |
| | | | IZMI | 0902.4 | 0902.7 | III | G | 1 | 25 | 90 | |
| | | | IZMI | 0905.6 | 0905.8 | III | G,HARM | 1 | 25X | 62 | |
| | | | IZMI | 0935.7 | 0936.1 | III | G | 2 | 25X | 90 | |
| | | | IZMI | 1009.9 | 1010.2 | III | G | 1 | 40 | 90 | |
| | | | IZMI | 1032.6 | 1034.1 | III | GG | 1 | 25X | 145 | |
| | | | SVTO | 1039.0 | 1041.0 | III | | 2 | 25 | 146 | |
| | | | IZMI | 1039.4 | 1040.4 | III | G,C | 2 | 25X | 180 | |
| | | | IZMI | 1041.4 | 1043.0 | III | G | 1 | 25X | 90 | |
| | | | SGMR | 1137.0 | 1138.0 | III | | 1 | 30 | 70 | |
| | | | SVTO | 1137.0 | 1139.0 | III | | 1 | 25 | 126 | |
| | | | IZMI | 1137.5 | 1139.6 | III | G,C | 2 | 25X | 205 | |
| | | | IZMI | 1146.2 | 1146.8 | III | G | 1 | 50 | 90 | |

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| Day | OBSERVATION Start (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 0504 | 1733 | ONDR | 1239.5 | 1241.5 | CONT | | 1 | 2498 | 4500X | |
| | | | BLEN | 1241.2 | 1241.9 | III | GG,RS | 3 | 1250X | 2700 | |
| | | | ONDR | 1241.2 | 1241.5 | DCIM | G | 2 | 964 | 2000X | |
| | 0515 | 1750 | BLEN | 1241.2 | 1241.9 | DCIM | C | 3 | 2400 | 4000X | |
| | | | SVTO | 1244.0 | 1244.0 | III | | 1 | 25 | 143 | |
| | 1954 | 2400 | HIRA | 2331.0 | 2333.0 | II | | 1 | 80 | 130 | |
| | 2050 | 2400 | CULG | 2331.0 | 2332.0 | III | B | 1 | 60 | 160 | |
| 16 | | | PALE | 0002.0 | 0008.0 | III | | 1 | 25U | 64U | |
| | | | HOLL | 0003.0 | 0008.0 | III | | 1 | 25 | 51 | |
| | | | LEAR | 0003.0 | 0009.0 | III | | 1 | 25 | 84 | |
| | 0000 | 0720 | CULG | 0004.0 | 0008.0 | III | G | 1 | 57X | 80 | |
| | | | CULG | 0142.0 | 0142.0 | III | B | 1 | 57X | 90 | |
| | | | CULG | 0433.0 | 0433.0 | III | B | 1 | 57X | 150 | |
| | 0000 | 0928 | HIRA | 0433.0 | 0433.5 | III | B | 1 | 40 | 170 | |
| | | | ONDR | 0953.2 | 1002.0 | DCIM | | 1 | 800X | 2000X | |
| | | | SVTO | 0954.0 | 1001.0 | III | | 2 | 25 | 180 | |
| | 0458 | 1200 | IZMI | 0954.7 | 0958.3 | III | GG | 2 | 25X | 270X | |
| | 0505 | 1732 | ONDR | 0955.1 | 0958.3 | DCIM | G | 1 | 2000X | 4500X | |
| | 0515 | 1745 | BLEN | 0955.2 | 0957.7 | DCIM | C | 3 | 1200 | 4000X | |
| | | | IZMI | 0959.0 | 1003.6 | III | GG | 1 | 45 | 140 | |
| | | | IZMI | 1021.1 | 1021.5 | III | B | 1 | 25 | 90 | |
| | | | SVTO | 1409.0 | 1410.0 | III | | 1 | 25 | 63 | |
| | 1955 | 2400 | HIRA | | | | | | | | |
| | 2050 | 2400 | CULG | | | | | | | | |
| 17 | 0000 | 0927 | HIRA | 0017.5 | 0018.0 | III | B | 1 | 100 | 160 | |
| | 0000 | 0720 | CULG | 0049.0 | 0053.0 | III | G | 1 | 57X | 80 | |
| | | | CULG | 0153.0 | 0153.0 | III | B | 1 | 57X | 140 | |
| | 0507 | 1731 | ONDR | | | | | | | | |
| | 0515 | 1745 | BLEN | | | | | | | | |
| | | | HIRA | 0739.0 | 0740.0 | III | B | 1 | 150 | 390 | |
| | 0450 | 1200 | IZMI | 0739.2 | 0740.1 | III | GG | 2 | 180 | 270X | |
| | | | IZMI | 0747.3 | 0747.4 | III | G | 1 | 180 | 270X | |
| | | | HIRA | 0828.5 | 0829.0 | III | B | 1 | 80 | 500 | |
| | | | IZMI | 0857.0 | 0857.7 | III | G | 1 | 25X | 95 | |
| | | | IZMI | 0943.3 | 0944.1 | III | G | 2 | 30 | 95 | |
| | | | IZMI | 1043.5 | 1044.5 | III | G | 2 | 35 | 150 | |
| | | | IZMI | 1121.5 | 1123.3 | III | G | 1 | 25 | 90 | |
| | | | SGMR | 1205.0 | 1205.0 | III | | 1 | 30 | 80 | |
| | | | SVTO | 1205.0 | 1205.0 | III | | 2 | 25 | 180 | |
| | 1956 | 2400 | HIRA | | | | | | | | |
| | 2050 | 2400 | CULG | | | | | | | | |
| 18 | 0000 | 0720 | CULG | | | | | | | | |
| | 0000 | 0925 | HIRA | | | | | | | | |
| | 0508 | 1729 | ONDR | | | | | | | | |
| | 0520 | 1735 | BLEN | | | | | | | | |
| | 0450 | 1200 | IZMI | 0603.0 | 0603.2 | III | B | 1 | 45 | 85 | |
| | | | HOLL | 1629.0 | 1630.0 | III | | 1 | 25 | 93 | |
| | | | SGMR | 1630.0 | 1630.0 | III | | 1 | 30 | 55 | |
| | | | SVTO | 1630.0 | 1630.0 | III | | 1 | 25 | 81 | |
| | | | HOLL | 2353.0 | 2355.0 | III | | 1 | 25 | 180 | |
| | | | LEAR | 2353.0 | 2355.0 | III | | 2 | 25 | 180 | |
| | 2050 | 2400 | CULG | 2353.0 | 2354.0 | III | G | 2 | 57X | 180 | |
| | 1957 | 2400 | HIRA | 2353.5 | 2354.0 | III | B | 1 | 30 | 310 | |
| 19 | 0000 | 0720 | CULG | | | | | | | | |
| | 0000 | 0924 | HIRA | | | | | | | | |
| | 0509 | 1731 | ONDR | | | | | | | | |
| | 0500 | 1200 | IZMI | 0639.4 | 0640.1 | II | | 1 | 45 | 70 | |
| | | | IZMI | 1047.8 | 1048.3 | III | GG | 1 | 45 | 180 | |
| | | | IZMI | 1050.3 | 1050.8 | III | GG | 1 | 40 | 170 | |
| | 0520 | 1735 | BLEN | 1600.0X | 1735.0X | I | N | 1 | 240 | 400 | |
| | 1957 | 2400 | HIRA | | | | | | | | |
| | 2050 | 2400 | CULG | | | | | | | | |
| | | | PALE | 2353.0 | 2354.0 | III | | 1 | 25 | 180 | |
| 20 | 0000 | 0720 | CULG | 0017.0 | 0018.0 | III | G | 1 | 57X | 90 | |

# S O L A R  R A D I O  E M I S S I O N
## Spectral Observations

### AUGUST 2001

| Day | OBSERVATION Start (UT) | OBSERVATION End (UT) | Sta | EVENT Start (UT) | EVENT End (UT) | EVENT Spectral Class | EVENT Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | FREQUENCY Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | | | CULG | 0028.0 | 0029.0 | III | G | 1 | 65 | 180 | |
| | 0000 | 0923 | HIRA | 0028.0 | 0028.5 | III | B | 1 | 100 | 180 | |
| | 0510 | 1727 | ONDR | | | | | | | | |
| | 0510 | 1200 | IZMI | 0748.4 | 0748.6 | III | B | 1 | 45 | 95 | |
| | 0520 | 1735 | BLEN | 1617.0 | 1619.4 | III | GG | 1 | 310 | 1600X | |
| | | | HOLL | 1924.0 | 1935.0 | II | | 1 | 55 | 180 | ESS 0532 |
| | | | PALE | 1924.0 | 1934.0 | II | | 1 | 73 | 180 | ESS 0663 |
| | | | SGMR | 2041.0 | 2042.0 | III | | 1 | 30 | 80 | |
| | 1958 | 2400 | HIRA | 2041.5 | 2042.0 | III | B | 2 | 25X | 280 | |
| | 2050 | 2400 | CULG | | | | | | | | |
| 21 | 0000 | 0720 | CULG | | | | | | | | |
| | 0000 | 0922 | HIRA | 0158.0 | 0158.5 | III | B | 1 | 120 | 270 | |
| | 0450 | 0525 | IZMI | 0837.0 | 0837.1 | III | B | 2 | 220 | 270X | |
| | 0527 | 1200 | IZMI | 0938.0 | 0938.3 | III | G | 2 | 125 | 160 | |
| | | | SVTO | 1029.0 | 1037.0 | III | | 1 | 112 | 178 | |
| | | | IZMI | 1029.8 | 1030.2 | III | G | 2 | 135 | 215 | |
| | | | ONDR | 1036.1 | 1042.4 | DCIM | G | 2 | 800X | 2000X | |
| | | | IZMI | 1036.2 | 1037.5 | III | GG,C | 2 | 60 | 270X | |
| | 0512 | 1725 | ONDR | 1036.2 | 1042.5 | DCIM | GG | 2 | 2000X | 4500X | |
| | 0520 | 1730 | BLEN | 1036.5 | 1042.0 | DCIM | C | 1 | 1200X | 4000X | |
| | | | IZMI | 1037.9 | 1040.9 | I | GG,DC | 2 | 115 | 245 | |
| | | | IZMI | 1039.1 | 1039.3 | III | G | 2 | 200 | 265 | |
| | | | IZMI | 1039.4 | 1045.0 | II | HARM | 2 | 80 | 270X | |
| | | | HOLL | 1752.0 | 1752.0 | III | | 1 | 25 | 125 | |
| | | | HOLL | 1855.0 | 1857.0 | III | | 1 | 25 | 180 | |
| | | | PALE | 1942.0 | 2132.0 | III | N | 1 | 25 | 75 | |
| | | | PALE | 2106.0 | 2203.0 | II | | 1 | 60 | 180 | ESS 0740 |
| | | | PALE | 2154.0 | 2155.0 | III | | 1 | 25 | 180 | |
| | 2050 | 2400 | CULG | 2154.0 | 2200.0 | II | FN | 2 | 120U | 620 | |
| | | | HOLL | 2155.0 | 2155.0 | III | | 1 | 25 | 133 | |
| | | | PALE | 2156.0 | 2203.0 | II | | 1 | 60 | 180 | ESS 0740 |
| | | | CULG | 2157.0 | 2202.0 | II | SH | 1 | 120U | 450 | ESS 750 |
| | | | HOLL | 2200.0 | 2203.0 | II | | 1 | 105 | 180 | ESS 0515 |
| | | | PALE | 2206.0 | 2203.0 | II | | 1 | 60 | 180 | ESS 0740 |
| | | | CULG | 2307.0 | 2307.0 | III | B | 2 | 57X | 160 | |
| | | | HOLL | 2307.0 | 2308.0 | III | | 1 | 25 | 161 | |
| | | | LEAR | 2307.0 | 2307.0 | III | | 1 | 25 | 180 | |
| | | | PALE | 2307.0 | 2308.0 | III | | 1 | 25 | 165 | |
| | | | LEAR | 2344.0 | 2344.0 | III | | 1 | 25 | 94 | |
| | | | PALE | 2344.0 | 2344.0 | III | | 1 | 25U | 62U | |
| 22 | | | LEAR | 0101.0 | 0101.0 | III | | 1 | 31 | 84 | |
| | 0000 | 0720 | CULG | 0101.0 | 0101.0 | III | B | 1 | 60 | 90 | |
| | | | CULG | 0226.0 | 0306.0 | III | N | 1 | 57X | 150 | |
| | | | LEAR | 0226.0 | 0226.0 | III | | 1 | 25 | 180 | |
| | | | PALE | 0226.0 | 0226.0 | III | | 1 | 25 | 147 | |
| | | | LEAR | 0303.0 | 0305.0 | III | | 1 | 25 | 147 | |
| | | | PALE | 0303.0 | 0305.0 | III | | 1 | 25 | 150 | |
| | | | LEAR | 0423.0 | 0429.0 | III | | 1 | 25 | 146 | |
| | | | CULG | 0425.0 | 0429.0 | III | G | 2 | 57X | 160 | |
| | | | SVTO | 0425.0 | 0426.0 | III | | 1 | 25U | 81U | |
| | 0452 | 1200 | IZMI | 0523.9 | 0524.0 | III | B | 1 | 190 | 270X | |
| | 0525 | 1730 | BLEN | | | | | | | | |
| | | | SVTO | 0621.0 | 0621.0 | III | | 1 | 25U | 75U | |
| | | | IZMI | 0621.2 | 0621.4 | III | B | 2 | 45 | 140 | |
| | | | IZMI | 0626.6 | 0627.0 | III | B | 1 | 45 | 95 | |
| | | | CULG | 0635.0 | 0635.0 | III | B | 1 | 57X | 90 | |
| | | | LEAR | 0635.0 | 0635.0 | III | | 1 | 25 | 146 | |
| | | | SVTO | 0635.0 | 0635.0 | III | | 1 | 25U | 83U | |
| | | | IZMI | 0635.3 | 0636.3 | III | G | 2 | 40 | 150 | |
| | | | IZMI | 0719.3 | 0719.5 | III | B | 1 | 45X | 70 | |
| | | | IZMI | 0734.6 | 0811.0 | III | S | 2 | 25X | 270X | |
| | | | LEAR | 0738.0 | 0911.0 | III | N | 2 | 25 | 180 | |
| | | | SVTO | 0739.0 | 0933.0 | III | N | 2 | 25 | 180 | |
| | 0513 | 1727 | ONDR | 0740.1 | 0742.2 | DCIM | G | 1 | 800X | 1189 | |
| | | | IZMI | 0746.5 | 0751.0 | III | GG,C,FS | 2 | 25 | 270X | |
| | | | IZMI | 0752.7 | 0754.5 | III | GG | 2 | 25X | 180 | |
| | | | IZMI | 0804.8 | 0805.9 | III | GG | 2 | 25X | 160 | |

# SOLAR RADIO EMISSION
## Spectral Observations

## AUGUST 2001

| OBSERVATION Day | Start (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 22 | | | IZMI | 0818.0 | 0918.0 | III | S | 2 | 25X | 155 | |
| | | | IZMI | 0829.1 | 0831.7 | III | G | 2 | 25X | 95X | |
| | | | IZMI | 0837.1 | 0842.0 | III | GG,FS | 2 | 25X | 155 | |
| | | | IZMI | 0922.0 | 0951.0 | III | N | 2 | 25X | 160 | |
| | | | IZMI | 0956.0U | 1009.0 | III | N | 1 | 45 | 95 | |
| | | | IZMI | 1010.0 | 1010.3 | III | G | 2 | 40 | 145 | |
| | | | IZMI | 1033.4 | 1034.2 | III | G | 2 | 45 | 85 | |
| | | | IZMI | 1057.0 | 1057.4 | III | B | 2 | 40 | 170 | |
| | | | IZMI | 1138.4 | 1138.6 | III | B | 2 | 45 | 95 | |
| | | | IZMI | 1155.2 | 1155.5 | III | B | 1 | 45 | 90 | |
| | | | ONDR | 1513.2 | 1516.0 | DCIM | GG | 2 | 800X | 1283 | |
| | | | HOLL | 2224.0 | 2224.0 | III | | 1 | 25 | 178 | |
| | 2050 | 2400 | CULG | 2224.0 | 2224.0 | III | B | 3 | 57X | 300 | |
| | | | HOLL | 2344.0 | 2344.0 | III | | 1 | 25 | 83 | |
| 23 | 0000 | 0720 | CULG | 0218.0 | 0218.0 | III | B | 1 | 120 | 180 | |
| | 0000 | 0919 | HIRA | 0218.0 | 0218.5 | III | B | 1 | 120 | 250 | |
| | 0503 | 1200 | IZMI | 0503.0E | 1113.0U | III | N | 2 | 25X | 95U | |
| | 0514 | 1654 | ONDR | | | | | | | | |
| | | | IZMI | 0628.6 | 0628.7 | III | G | 2 | 135 | 270X | |
| | | | SGMR | 1239.0 | 1239.0 | III | | 1 | 30 | 47 | |
| | | | SVTO | 1239.0 | 1239.0 | III | | 1 | 25U | 48U | |
| | 0530 | 1725 | BLEN | 1345.0 | 1346.3 | DCIM | C | 1 | 1250 | 4000X | |
| | | | HOLL | 1431.0 | 1610.0 | III | N | 1 | 25 | 119 | |
| | | | BLEN | 1436.4 | 1439.6 | III | GG,RS | 3 | 1200X | 4000X | |
| | | | SVTO | 1439.0 | 1505.0 | III | N | 1 | 25 | 82 | |
| | | | SGMR | 1451.0 | 1501.0 | III | N | 1 | 30 | 55 | |
| | | | HOLL | 1722.0 | 1722.0 | III | | 1 | 25 | 59 | |
| | | | HOLL | 1758.0 | 1758.0 | III | | 1 | 25 | 59 | |
| | 2050 | 2400 | CULG | 2344.0 | 2345.0 | III | G | 1 | 57X | 170 | |
| | 2001 | 2400 | HIRA | 2344.5 | 2345.0 | III | B | 1 | 40 | 160 | |
| | | | CULG | 2350.0 | 2351.0 | III | G | 1 | 57X | 120 | |
| | | | HIRA | 2350.5 | 2351.0 | III | B | 1 | 50 | 120 | |
| 24 | | | PALE | 0155.0 | 0156.0 | III | | 1 | 25 | 180 | |
| | 0000 | 0918 | HIRA | 0155.5 | 0157.0 | III | G | 1 | 25X | 150 | |
| | 0000 | 0720 | CULG | 0156.0 | 0157.0 | III | G | 1 | 57X | 150 | |
| | | | CULG | 0452.0 | 0452.0 | III | B | 1 | 57X | 160 | |
| | 0516 | 1658 | ONDR | | | | | | | | |
| | 0503 | 1200 | IZMI | 0534.1 | 0541.7 | III | GG | 2 | 40 | 160 | |
| | | | CULG | 0714.0 | 0714.0 | III | B | 1 | 57X | 80 | |
| | | | IZMI | 0714.2 | 0714.4 | III | B | 1 | 45 | 90 | |
| | | | IZMI | 0922.0 | 1100.0U | I | S | 2 | 45 | 150 | |
| | | | IZMI | 0938.5 | 1014.0U | III | N | 1 | 45 | 120 | |
| | | | IZMI | 1017.2 | 1017.4 | III | B | 1 | 180 | 260 | |
| | | | IZMI | 1050.0U | 1139.0 | III | N | 1 | 45 | 95 | |
| | | | SVTO | 1100.0 | 1131.0 | III | N | 2 | 25 | 180 | |
| | | | IZMI | 1100.6 | 1102.3 | III | GG | 2 | 25X | 220 | |
| | | | IZMI | 1104.5 | 1110.0 | III | GG | 2 | 25X | 180 | |
| | | | IZMI | 1111.2 | 1118.8 | III | GG | 2 | 25X | 270X | |
| | | | SGMR | 1112.0 | 1127.0 | III | N | 2 | 30 | 80 | |
| | | | IZMI | 1125.0 | 1131.8 | III | GG | 2 | 25X | 270X | |
| | | | IZMI | 1129.8 | 1130.0 | III | G | 3 | 205 | 270X | |
| | | | IZMI | 1143.5 | 1143.8 | III | G | 1 | 70 | 130 | |
| | | | HOLL | 1316.0 | 1318.0 | III | | 1 | 25 | 60 | |
| | | | SGMR | 1316.0 | 1318.0 | III | | 1 | 30 | 50 | |
| | | | SVTO | 1316.0 | 1318.0 | III | | 1 | 25 | 47 | |
| | 0530 | 1720 | BLEN | 1316.6 | 1317.4 | DCIM | C | 1 | 1200X | 4000X | |
| | | | BLEN | 1332.3 | 1336.6 | III | GG,RS,C | 3 | 1200X | 4000X | |
| | | | BLEN | 1512.5 | 1513.0 | III | GG,RS | 2 | 2300 | 2900 | |
| | | | PALE | 2039.0 | 2040.0 | III | | 1 | 25U | 60U | |
| | 2002 | 2400 | HIRA | 2040.0 | 2040.5 | III | B | 1 | 30 | 60 | |
| | | | PALE | 2107.0 | 2112.0 | III | | 1 | 25U | 58U | |
| | 2050 | 2400 | CULG | 2245.0 | 2248.0 | III | G | 1 | 57X | 110 | |
| | | | HIRA | 2246.5 | 2248.0 | III | G | 1 | 50 | 70 | |
| | | | SGMR | 2254.0 | 2307.0 | III | N | 1 | 30U | 80U | |
| | | | LEAR | 2345.0 | 0039.0 | III | N | 1 | 25 | 103 | |
| 25 | 0000 | 0125 | CULG | 0000.0 | 0001.0 | III | G | 1 | 57X | 80 | |

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| Day | OBSERVATION Start (UT) | OBSERVATION End (UT) | Sta | EVENT Start (UT) | EVENT End (UT) | EVENT Spectral Class | EVENT Event Remarks | FREQUENCY Int (1-3) | FREQUENCY Lower (MHz) | FREQUENCY Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | 0000 | 0916 | HIRA | 0008.0 | 0008.5 | III | B | 1 | 25X | 50 | |
| | | | LEAR | 0045.0 | 0045.0 | III | | 1 | 25 | 105 | |
| | | | CULG | 0057.0 | 0057.0 | III | G | 1 | 57X | 80 | |
| | | | HIRA | 0244.0 | 0244.5 | III | B | 1 | 190 | 240 | |
| | 0503 | 1213 | IZMI | 0503.0E | 1210.0 | III | N | 2 | 25X | 95X | |
| | | | IZMI | 0513.8 | 0517.1 | III | GG | 2 | 40 | 160 | |
| | 0517 | 1650 | ONDR | | | | | | | | |
| | | | SVTO | 0641.0 | 0642.0 | III | | 1 | 25 | 53 | |
| | | | SVTO | 0700.0 | 0949.0 | III | N | 1 | 25 | 126 | |
| | | | IZMI | 0700.5 | 0701.7 | III | G | 2 | 30 | 95 | |
| | | | LEAR | 0705.0 | 0805.0 | III | N | 1 | 25 | 109 | |
| | | | IZMI | 0705.9 | 0732.3 | III | N | 2 | 25X | 120 | |
| | | | LEAR | 0832.0 | 0933.0 | III | N | 1 | 25 | 134 | |
| | | | IZMI | 0832.2 | 0843.3 | III | G,FS | 2 | 25X | 120 | |
| | | | HIRA | 0832.5 | 0843.5 | III | G | 1 | 50 | 120 | |
| | | | IZMI | 0859.9 | 0903.5 | III | G | 2 | 25X | 100 | |
| | | | LEAR | 0935.0 | 0936.0 | III | | 1 | 25 | 180 | |
| | | | SVTO | 0935.0 | 0936.0 | III | | 2 | 25 | 149 | |
| | | | IZMI | 0935.4 | 0936.4 | III | G | 2 | 25X | 230 | |
| | | | HOLL | 1325.0 | 1326.0 | III | | 1 | 25 | 73 | |
| | | | SGMR | 1325.0 | 1326.0 | III | | 1 | 30 | 55 | |
| | | | SVTO | 1325.0 | 1326.0 | III | | 2 | 25 | 82 | |
| | | | HOLL | 1424.0 | 1424.0 | III | | 1 | 25 | 70 | |
| | 0540 | 1720 | BLEN | 1626.6 | 1651.6 | III | GG,RS | 3 | 1200X | 1900 | |
| | | | HOLL | 1631.0 | 1636.0 | III | | 2 | 25 | 180 | |
| | | | PALE | 1632.0 | 1643.0 | II | | 2 | 25 | 180 | ESS 1280 |
| | | | SGMR | 1632.0 | 1648.0 | III | N | 2 | 30 | 80 | |
| | | | SVTO | 1632.0 | 1633.0 | III | | 1 | 25 | 180 | |
| | | | SVTO | 1632.0 | 1647.0 | II | | 2 | 25 | 180 | ESS 0966 |
| | | | HOLL | 1638.0 | 1653.0 | II | | 2 | 25 | 180 | ESS 1264 |
| | | | HOLL | 1639.0 | 1705.0 | IV | | 1 | 42 | 180 | |
| | | | PALE | 1639.0 | 1705.0 | IV | | 2 | 44 | 180 | |
| | | | SVTO | 1642.0 | 1703.0 | IV | | 2 | 66U | 180U | |
| | | | HOLL | 1906.0 | 1906.0 | III | | 1 | 25 | 64 | |
| | | | SGMR | 1906.0 | 1906.0 | III | | 1 | 30 | 60 | |
| | | | HOLL | 2047.0 | 2048.0 | III | | 1 | 25 | 180 | |
| | | | SGMR | 2047.0 | 2048.0 | III | | 1 | 30 | 80 | |
| | 2002 | 2400 | HIRA | 2047.0 | 2049.5 | III | G | 2 | 25X | 230 | |
| | | | PALE | 2244.0 | 0244.0 | III | N | 1 | 25 | 75 | |
| | | | LEAR | 2257.0 | 0954.0 | CONT | | 1 | 58 | 131 | |
| 26 | | | IZMI | 0450.0E | 1200.0 | III | N | 2 | 25 | 120 | |
| | 0450 | 1200 | IZMI | 0450.0E | 1200.0 | I | N | 1 | 45 | 150 | |
| | 0519 | 1648 | ONDR | | | | | | | | |
| | | | LEAR | 0520.0 | 0521.0 | III | | 1 | 25 | 180 | |
| | | | SVTO | 0520.0 | 0520.0 | III | | 1 | 25 | 149 | |
| | 0000 | 0915 | HIRA | 0520.5 | 0521.0 | III | B | 1 | 30 | 200 | |
| | 0540 | 1720 | BLEN | | | | | | | | |
| | | | IZMI | 0546.5 | 0550.1 | III | GG | 2 | 45 | 110 | |
| | | | LEAR | 0715.0 | 0716.0 | III | | 2 | 25 | 180 | |
| | | | SVTO | 0715.0 | 0716.0 | III | | 2 | 25 | 83 | |
| | | | HIRA | 0715.5 | 0716.0 | III | B | 1 | 30 | 140 | |
| | | | IZMI | 0715.7 | 0716.5 | III | G | 2 | 25X | 150 | |
| | | | IZMI | 0837.2 | 0840.8 | III | GG | 2 | 40 | 95 | |
| | | | IZMI | 0850.3 | 0859.0 | III | GG | 2 | 25X | 95 | |
| | | | IZMI | 0910.0 | 0910.3 | III | G | 2 | 45 | 160 | |
| | | | IZMI | 0927.9 | 0928.8 | III | G | 2 | 40 | 70 | |
| | | | IZMI | 1120.2 | 1121.5 | III | G | 2 | 25 | 95 | |
| | | | HOLL | 1427.0 | 1431.0 | III | | 1 | 25 | 54 | |
| | | | SGMR | 1428.0 | 1452.0 | III | N | 1 | 30 | 50 | |
| | | | SVTO | 1428.0 | 1429.0 | III | | 1 | 25 | 40 | |
| | | | HOLL | 1450.0 | 1451.0 | III | | 1 | 25 | 51 | |
| | | | SVTO | 1450.0 | 1451.0 | III | | 1 | 25 | 61 | |
| | | | HOLL | 1523.0 | 1523.0 | III | | 1 | 25 | 87 | |
| | | | SVTO | 1523.0 | 1523.0 | III | | 1 | 25 | 82 | |
| | | | LEAR | 2357.0 | 2357.0 | III | | 1 | 38 | 84 | |
| | 2003 | 2400 | HIRA | 2357.0 | 2357.5 | III | B | 1 | 40 | 80 | |
| 27 | 0000 | 0914 | HIRA | 0358.0 | 0358.5 | III | B | 1 | 60 | 130 | |

# SOLAR RADIO EMISSION
## Spectral Observations

## AUGUST 2001

| OBSERVATION Day | Start (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 27 | 0520 | 1646 | ONDR | | | | | | | | |
| | | | IZMI | 0542.0E | 0645.0U | III | N | 1 | 45 | 95 | |
| | 0542 | 1200 | IZMI | 0542.0E | 1200.0D | I | S | 1 | 120 | 270X | |
| | | | IZMI | 0542.6 | 0547.7 | III | GG | 2 | 45 | 150 | |
| | | | LEAR | 0543.0 | 0617.0 | III | N | 1 | 25 | 180 | |
| | | | SVTO | 0543.0 | 0808.0 | III | N | 1 | 25 | 180 | |
| | | | HIRA | 0543.5 | 0545.0 | III | G | 1 | 30 | 170 | |
| | 0110 | 0730 | CULG | 0544.0 | 0544.0 | III | G | 1 | 57X | 160 | |
| | | | IZMI | 0553.6 | 0553.7 | III | B | 1 | 50 | 160 | |
| | | | IZMI | 0557.1 | 0557.8 | III | G | 2 | 40 | 115 | |
| | | | IZMI | 0606.3 | 0606.6 | III | B | 1 | 45 | 95 | |
| | 0530 | 1650 | BLEN | 0634.3 | 0637.4 | DCIM | C | 2 | 2300 | 4000X | |
| | 0540 | 1730 | BLEN | 0634.5 | 0637.8 | DCIM | C | 3 | 1500 | 4000X | |
| | | | CULG | 0702.0 | 0705.0 | III | G | 1 | 57X | 140 | |
| | | | HIRA | 0702.0 | 0704.5 | III | G | 1 | 30 | 150 | |
| | | | LEAR | 0702.0 | 0819.0 | III | N | 1 | 25 | 152 | |
| | | | IZMI | 0702.1 | 0703.8 | III | GG,FS | 2 | 25X | 165 | |
| | | | IZMI | 0704.3 | 0704.6 | III | G | 1 | 25X | 145 | |
| | | | IZMI | 0717.3 | 0722.4 | III | GG | 2 | 45 | 120 | |
| | | | CULG | 0719.0 | 0723.0 | III | GG | 1 | 57X | 100 | |
| | | | BLEN | 0720.3 | 0723.6 | DCIM | C | 1 | 1400 | 4000X | |
| | | | BLEN | 0720.4 | 0724.0 | DCIM | C | 3 | 1500 | 4000X | |
| | | | IZMI | 0723.0U | 0743.0U | III | N | 1 | 45 | 95 | |
| | | | IZMI | 0730.1 | 0733.0 | III | GG | 2 | 30 | 95 | |
| | | | BLEN | 1129.9 | 1155.0 | DCIM | C | 1 | 2800 | 4000X | |
| | | | HOLL | 1336.0 | 1337.0 | III | | 1 | 25 | 82 | |
| | | | SGMR | 1336.0 | 1336.0 | III | | 1 | 30 | 55 | |
| | | | SVTO | 1336.0 | 1337.0 | III | | 1 | 25 | 83 | |
| | | | BLEN | 1339.0 | 1343.2 | DCIM | C | 1 | 1400 | 4000X | |
| | | | BLEN | 1341.0 | 1352.5 | DCIM | C | 1 | 2800 | 4000X | |
| | | | HOLL | 1654.0 | 1654.0 | III | | 1 | 25 | 151 | |
| | | | SGMR | 1654.0 | 1654.0 | III | | 2 | 30 | 60 | |
| | | | SVTO | 1654.0 | 1654.0 | III | | 1 | 25 | 157 | |
| | 2004 | 2400 | HIRA | | | | | | | | |
| | 2050 | 2400 | CULG | | | | | | | | |
| | | | HOLL | 2356.0 | 2357.0 | III | | 1 | 25 | 84 | |
| 28 | 0000 | 0912 | HIRA | 0006.5 | 0012.0 | III | G | 1 | 200 | 800 | |
| | | | LEAR | 0200.0 | 0252.0 | III | N | 1 | 25 | 180 | |
| | | | PALE | 0200.0 | 0200.0 | III | | 1 | 83U | 180U | |
| | | | HIRA | 0200.5 | 0201.0 | III | B | 2 | 80 | 440 | |
| | | | CULG | 0201.0 | 0204.0 | V | | 1 | 70 | 180 | |
| | 0000 | 0730 | CULG | 0201.0 | 0201.0 | III | B | 2 | 70 | 450 | |
| | | | CULG | 0207.0 | 0224.0 | III | N | 1 | 57X | 90 | |
| | 0500 | 1200 | IZMI | 0538.8 | 0539.0 | III | B | 1 | 45 | 80 | |
| | | | IZMI | 0635.0 | 0636.2 | III | G | 2 | 40 | 100 | |
| | | | LEAR | 0635.0 | 0636.0 | III | | 1 | 25 | 88 | |
| | | | SVTO | 0635.0 | 0636.0 | III | | 1 | 25 | 82 | |
| | | | HIRA | 0635.5 | 0636.0 | III | B | 1 | 50 | 130 | |
| | | | IZMI | 0657.7 | 0659.9 | III | G | 1 | 45 | 90 | |
| | | | IZMI | 0827.2 | 0827.5 | III | G | 1 | 95 | 270X | |
| | | | IZMI | 1015.3 | 1015.5 | III | B | 1 | 35 | 90 | |
| | 0530 | 1715 | BLEN | 1537.0 | 1613.0 | III | GG,RS,C | 2 | 1200 | 4000X | |
| | 0521 | 1644 | ONDR | 1556.0 | 1610.5 | DCIM | GG | 2 | 800X | 2000X | |
| | | | HOLL | 1601.0 | 1617.0 | II | | 1 | 26 | 174 | ESS 1127 |
| | | | SVTO | 1601.0 | 1613.0 | II | | 2 | 25 | 180 | ESS 0947 |
| | | | SGMR | 1602.0 | 1614.0 | II | | 3 | 30 | 80 | ESS 0720 |
| | | | SVTO | 1614.0 | 1621.0 | IV | | 1 | 38U | 60U | |
| | | | HOLL | 1618.0 | 1740.0 | IV | | 1 | 25 | 75 | |
| | | | SGMR | 1620.0 | 1726.0 | IV | | 1 | 30 | 45 | |
| | | | HOLL | 2002.0 | 2012.0 | III | N | 1 | 25 | 147 | |
| | 2005 | 2400 | HIRA | | | | | | | | |
| | 2050 | 2400 | CULG | | | | | | | | |
| 29 | | | LEAR | 0206.0 | 0207.0 | III | | 1 | 25 | 108 | |
| | | | PALE | 0206.0 | 0206.0 | III | | 1 | 35U | 86U | |
| | 0000 | 0730 | CULG | 0206.0 | 0206.0 | III | B | 1 | 57X | 130 | |
| | 0000 | 0911 | HIRA | 0206.5 | 0207.0 | III | B | 1 | 50 | 90 | |
| | | | LEAR | 0234.0 | 0234.0 | III | | 1 | 25 | 112 | |

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| Day | OBSERVATION Start (UT) | OBSERVATION End (UT) | Sta | EVENT Start (UT) | EVENT End (UT) | EVENT Spectral Class | EVENT Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | FREQUENCY Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 29 | 0500 | 1200 | IZMI | 0517.4 | 0517.5 | III | B | 2 | 220 | 270X | |
| | 0523 | 1642 | ONDR | | | | | | | | |
| | 0530 | 1715 | BLEN | 0556.2 | 0612.0 | III | GG,RS,C | 2 | 1200 | 4000X | |
| | | | BLEN | 0611.5 | 0612.0 | DCIM | P | 2 | 1900 | 3700 | |
| | | | LEAR | 0617.0 | 0617.0 | III | | 1 | 25 | 151 | |
| | | | IZMI | 0617.5 | 0618.0 | III | G | 2 | 110 | 270X | |
| | | | CULG | 0618.0 | 0618.0 | III | B | 1 | 57X | 180 | |
| | | | LEAR | 0641.0 | 0642.0 | III | | 1 | 25 | 89 | |
| | | | SVTO | 0641.0 | 0642.0 | III | | 1 | 28 | 124 | |
| | | | IZMI | 0641.8 | 0642.1 | III | G | 2 | 45 | 90 | |
| | | | CULG | 0642.0 | 0642.0 | III | B | 1 | 57X | 90 | |
| | | | SVTO | 0709.0 | 0710.0 | III | | 1 | 28 | 55 | |
| | | | IZMI | 0709.7 | 0711.4 | III | G | 1 | 45 | 90 | |
| | | | IZMI | 0748.5 | 0748.6 | III | B | 1 | 45 | 65 | |
| | | | LEAR | 0834.0 | 0835.0 | III | | 1 | 25 | 180 | |
| | | | SVTO | 0834.0 | 0835.0 | III | | 1 | 51 | 148 | |
| | | | HIRA | 0834.5 | 0835.0 | III | B | 2 | 80 | 120 | |
| | | | IZMI | 0834.7 | 0835.3 | III | GG | 2 | 50 | 215 | |
| | | | IZMI | 1110.5 | 1113.7 | III | GG | 1 | 50 | 270X | |
| | | | SVTO | 1113.0 | 1114.0 | III | | 1 | 30 | 146 | |
| | | | SGMR | 1133.0 | 1133.0 | III | | 1 | 30 | 57 | |
| | | | SVTO | 1133.0 | 1134.0 | III | | 1 | 25 | 126 | |
| | | | IZMI | 1133.3 | 1135.0 | III | GG,C | 2 | 25X | 215 | |
| | | | IZMI | 1145.5 | 1145.9 | III | G | 1 | 90 | 160 | |
| | | | HOLL | 1403.0 | 1403.0 | III | | 1 | 77 | 180 | |
| | | | SVTO | 1403.0 | 1403.0 | III | | 1 | 75 | 180 | |
| | | | SVTO | 1419.0 | 1420.0 | III | | 1 | 76 | 180 | |
| | | | HOLL | 1441.0 | 1550.0 | III | N | 1 | 25 | 132 | |
| | | | SVTO | 1506.0 | 1506.0 | III | | 1 | 25 | 131 | |
| | | | HOLL | 1657.0 | 1720.0 | III | N | 1 | 25 | 127 | |
| | | | HOLL | 1839.0 | 1841.0 | III | | 1 | 25 | 180 | |
| | | | PALE | 1839.0 | 1841.0 | III | | 1 | 25 | 180 | |
| | | | SGMR | 1839.0 | 1841.0 | V | | 2 | 30 | 75 | |
| | 2006 | 2400 | HIRA | 2023.5 | 2024.0 | III | B | 3 | 300 | 520 | |
| | 2050 | 2400 | CULG | | | | | | | | |
| 30 | | | PALE | 0133.0 | 0138.0 | III | | 1 | 63 | 180 | |
| | 0000 | 0909 | HIRA | 0133.5 | 0139.5 | III | G | 3 | 90 | 700 | |
| | | | LEAR | 0134.0 | 0140.0 | III | | 2 | 43 | 180 | |
| | 0000 | 0730 | CULG | 0134.0 | 0135.0 | III | G | 1 | 57X | 320 | |
| | | | CULG | 0138.0 | 0139.0 | III | G | 2 | 70 | 500 | |
| | | | LEAR | 0140.0 | 0142.0 | II | | 1 | 71 | 80 | ESS 0480 |
| | | | CULG | 0141.0 | 0144.0 | II | FN | 1 | 57X | 90 | ESS 800 |
| | | | CULG | 0145.0 | 0147.0 | II | SH | 1 | 57X | 70 | |
| | | | CULG | 0204.0 | 0204.0 | III | B | 1 | 57X | 100 | |
| | | | LEAR | 0204.0 | 0204.0 | III | | 1 | 60 | 120 | |
| | | | LEAR | 0222.0 | 0223.0 | III | | 1 | 65 | 107 | |
| | | | CULG | 0242.0 | 0243.0 | III | G | 1 | 57X | 180 | |
| | | | LEAR | 0242.0 | 0243.0 | III | | 1 | 25 | 130 | |
| | | | HIRA | 0242.5 | 0243.0 | III | B | 1 | 50 | 200 | |
| | | | CULG | 0334.0 | 0334.0 | III | B | 1 | 57X | 70 | |
| | | | CULG | 0343.0 | 0344.0 | III | G | 1 | 57X | 120 | |
| | | | CULG | 0447.0 | 0448.0 | III | G | 1 | 57X | 160 | |
| | 0450 | 1200 | IZMI | 0609.2 | 0609.3 | III | B | 1 | 180 | 270X | |
| | | | IZMI | 0831.7 | 0832.1 | III | B | 2 | 45 | 170 | |
| | | | IZMI | 0840.7 | 0841.7 | III | G | 2 | 130 | 160 | |
| | | | IZMI | 0845.6 | 0846.7 | III | GG | 2 | 155 | 270 | |
| | | | HIRA | 0846.0 | 0846.5 | III | B | 1 | 160 | 270 | |
| | | | LEAR | 0846.0 | 0955.0 | III | N | 1 | 73 | 180 | |
| | | | IZMI | 0850.0 | 0852.4 | III | GG | 2 | 130 | 270X | |
| | | | HIRA | 0850.5 | 0851.0 | III | B | 1 | 130 | 350 | |
| | | | IZMI | 0856.8 | 0900.0 | III | G | 2 | 110 | 270X | |
| | | | SVTO | 0859.0 | 0900.0 | III | | 1 | 132 | 160 | |
| | | | IZMI | 0920.6 | 1200.0D | I | S,C | 2 | 45 | 270 | |
| | | | IZMI | 0921.0U | 1200.0D | III | N | 1 | 45 | 90 | |
| | | | SVTO | 0921.0 | 1210.0 | CONT | | 1 | 25 | 180 | |
| | | | IZMI | 0937.1 | 0940.1 | III | G | 2 | 45 | 175 | |
| | | | IZMI | 0944.5 | 0951.0U | CONT | | 2 | 120 | 270X | |
| | | | IZMI | 0948.3 | 0952.1 | III | GG | 2 | 30 | 160 | |

# S O L A R  R A D I O  E M I S S I O N
## Spectral Observations

## AUGUST 2001

| OBSERVATION Day | Start (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 30 | | | IZMI | 0958.2 | 0958.9 | III | G | 2 | 40 | 160 | |
| | | | IZMI | 1003.5 | 1004.0 | III | GG | 2 | 25 | 160 | |
| | 0524 | 1640 | ONDR | 1018.1 | 1033.5 | DCIM | GG | 2 | 800X | 1972 | |
| | 0540 | 1705 | BLEN | 1019.8 | 1024.4 | III | GG,RS | 1 | 1200X | 2000 | |
| | | | IZMI | 1044.1 | 1050.3 | III | GG | 2 | 25X | 175 | |
| | | | IZMI | 1143.9 | 1145.7 | III | G | 2 | 180 | 270X | |
| | | | IZMI | 1145.4 | 1148.7 | III | GG | 2 | 25X | 140 | |
| | | | SVTO | 1257.0 | 1258.0 | III | | 1 | 25 | 161 | |
| | | | BLEN | 1308.9 | 1310.8 | III | GG,C | 1 | 1200X | 4000X | |
| | | | BLEN | 1308.9 | 1310.8 | III | GG,RS,C | 1 | 1200X | 4000X | |
| | | | SVTO | 1309.0 | 1309.0 | III | | 1 | 79 | 161 | |
| | | | SGMR | 1408.0 | 1409.0 | III | | 2 | 30 | 47 | |
| | | | SVTO | 1408.0 | 1409.0 | III | | 1 | 25 | 83 | |
| | | | HOLL | 1409.0 | 1409.0 | III | | 1 | 25 | 82 | |
| | | | HOLL | 1534.0 | 1645.0 | III | N | 1 | 25 | 61 | |
| | | | SGMR | 1539.0 | 1540.0 | III | | 1 | 30 | 45 | |
| | | | SVTO | 1539.0 | 1540.0 | III | | 1 | 25 | 60 | |
| | | | SVTO | 1620.0 | 1621.0 | III | | 1 | 33 | 161 | |
| | | | HOLL | 1919.0 | 1922.0 | III | | 1 | 25 | 180 | |
| | | | PALE | 1920.0 | 1925.0 | III | | 1 | 25 | 180 | |
| | | | SGMR | 1921.0 | 1922.0 | III | | 1 | 30 | 80 | |
| | | | PALE | 2035.0 | 2053.0 | II | | 3 | 25 | 180 | ESS 1330 |
| | 2006 | 2400 | HIRA | 2035.0 | 2037.0 | III | B | 3 | 50 | 500 | |
| | | | HOLL | 2036.0 | 2053.0 | II | | 2 | 25 | 180 | ESS 1700 |
| | | | SGMR | 2036.0 | 2036.0 | III | | 1 | 30 | 80 | |
| | 2030 | 2400 | CULG | 2036.0 | 2037.0 | III | G | 3 | 57X | 1400 | |
| | | | CULG | 2037.0 | 2041.0 | V | | 3 | 57X | 200 | |
| | | | SGMR | 2037.0 | 2051.0 | II | | 2 | 30 | 80 | ESS 1400 |
| | | | HIRA | 2038.5 | 2042.5 | II | | 3 | 50 | 110 | |
| | | | HIRA | 2038.5 | 2042.5 | II | | 3 | 90 | 230 | |
| | | | CULG | 2039.0 | 2046.0 | II | FN | 3 | 57X | 300 | |
| | | | CULG | 2039.0 | 2051.0 | II | SH | 3 | 57X | 150 | ESS 750 |
| | | | HIRA | 2039.5 | 2046.0 | II | | 3 | 50 | 160 | |
| | | | HIRA | 2039.5 | 2050.5 | II | | 3 | 50 | 300 | |
| | | | CULG | 2215.0 | 2216.0 | III | G | 1 | 57X | 200 | |
| | | | HIRA | 2215.0 | 2215.5 | III | B | 1 | 25X | 240 | |
| | | | HOLL | 2215.0 | 2216.0 | III | | 1 | 25 | 180 | |
| | | | PALE | 2215.0 | 2216.0 | III | | 1 | 25 | 180 | |
| | | | CULG | 2217.0 | 2217.0 | III | B | 1 | 57X | 110 | |
| | | | HIRA | 2243.0 | 2243.5 | III | B | 1 | 80 | 400 | |
| | | | HIRA | 2244.5 | 2245.0 | III | B | 1 | 70 | 440 | |
| | | | HOLL | 2316.0 | 2317.0 | III | | 1 | 25 | 123 | |
| | | | LEAR | 2316.0 | 2317.0 | III | | 1 | 25 | 120 | |
| | | | LEAR | 2349.0 | 0030.0 | III | N | 1 | 42 | 144 | |
| | | | HIRA | 2356.0 | 2357.5 | III | G | 1 | 100 | 230 | |
| 31 | 0000 | 0730 | CULG | 0026.0 | 0127.0 | III | S | 1 | 57X | 180 | |
| | | | LEAR | 0032.0 | 0956.0 | CONT | | 1 | 59 | 180 | |
| | | | CULG | 0207.0 | 0207.0 | III | B | 1 | 57X | 180 | |
| | | | IZMI | 0602.9 | 0605.7 | III | GG,FS | 2 | 75 | 270X | |
| | 0000 | 0908 | HIRA | 0603.0 | 0610.5 | III | G | 1 | 50 | 380 | |
| | | | CULG | 0604.0 | 0610.0 | III | G | 1 | 57X | 180 | |
| | | | LEAR | 0607.0 | 0610.0 | III | | 1 | 44 | 180 | |
| | | | SVTO | 0607.0 | 0610.0 | III | | 1 | 49U | 135U | |
| | | | IZMI | 0607.1 | 0607.5 | III | G,C | 2 | 45 | 175 | |
| | | | IZMI | 0609.5 | 0610.4 | III | GG | 2 | 90 | 270X | |
| | | | IZMI | 0627.9 | 0628.1 | III | G | 1 | 110 | 270X | |
| | | | IZMI | 0709.0U | 0905.0U | I | N | 1 | 50 | 210 | |
| | | | IZMI | 0711.2 | 0711.4 | III | G | 1 | 45 | 215 | |
| | | | CULG | 0722.0 | 0730.0D | III | GG | 1 | 57X | 180 | |
| | | | IZMI | 0722.0 | 0725.4 | III | GG,C | 2 | 25X | 270X | |
| | | | HIRA | 0722.5 | 0725.0 | III | G | 1 | 50 | 250 | |
| | | | LEAR | 0723.0 | 0723.0 | III | | 1 | 25 | 180 | |
| | | | SVTO | 0723.0 | 0725.0 | V | | 1 | 25 | 161 | |
| | | | IZMI | 0743.9 | 0744.6 | III | G | 1 | 45 | 70 | |
| | | | IZMI | 0806.8 | 0807.1 | III | G | 2 | 55 | 215 | |
| | 0525 | 1638 | ONDR | 0845.4 | 0855.1 | DCIM | GG | 2 | 1110 | 2000X | |
| | | | ONDR | 1033.5 | 1047.0 | DCIM | G | 2 | 2000X | 4500X | |
| | 0540 | 1705 | BLEN | 1034.9 | 1054.5 | DCIM | C | 3 | 1200X | 4000X | |

# SOLAR RADIO EMISSION
## Spectral Observations

### AUGUST 2001

| OBSERVATION Start Day (UT) | End (UT) | Sta | EVENT Start (UT) | End (UT) | Spectral Class | Event Remarks | Int (1-3) | FREQUENCY Lower (MHz) | Upper (MHz) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|
| 31 | | ONDR | 1035.1 | 1054.2 | DCIM | GG | 2 | 800X | 2000X | |
| | | IZMI | 1035.8 | 1036.1 | III | B,FS | 2 | 40 | 95 | |
| | | IZMI | 1037.8 | 1038.8 | II | | 2 | 105 | 270X | |
| | | SVTO | 1038.0 | 1042.0 | III | | 2 | 25 | 180 | |
| | | IZMI | 1039.9 | 1051.0 | II | G,HARM | 2 | 50 | 270X | |
| | | SVTO | 1040.0 | 1049.0 | II | | 2 | 69 | 180 | ESS 0961 |
| | | IZMI | 1040.6 | 1042.1 | III | GG,FS | 2 | 25X | 270X | |
| | | SGMR | 1044.0 | 1044.0 | III | | 1 | 70U | 80U | |
| | | IZMI | 1046.5 | 1048.5 | III | N | 1 | 80 | 270X | |
| | | IZMI | 1050.8 | 1051.2 | III | G | 2 | 65 | 190 | |
| | | ONDR | 1054.1 | 1054.2 | DCIM | G | 1 | 2078 | 4383 | |
| | | IZMI | 1055.0U | 1200.0D | I | N | 1 | 65 | 270X | |
| | | SVTO | 1109.0 | 1109.0 | III | | 1 | 25 | 45 | |
| | | IZMI | 1109.1 | 1109.4 | III | B | 1 | 25X | 90 | |
| | | IZMI | 1122.7 | 1122.8 | III | G | 2 | 180 | 270X | |
| | | BLEN | 1124.8 | 1140.9 | DCIM | P | 3 | 1200X | 4000X | |
| | | ONDR | 1127.0 | 1141.1 | DCIM | GG | 2 | 800X | 2000X | |
| | | ONDR | 1128.3 | 1141.1 | DCIM | GG | 2 | 2000X | 4500X | |
| | | IZMI | 1128.7 | 1141.0U | III | S,FS | 2 | 25X | 270X | |
| | | SVTO | 1132.0 | 1140.0 | III | | 2 | 25 | 180 | |
| | | SGMR | 1133.0 | 1134.0 | III | | 1 | 30 | 80 | |
| | | IZMI | 1139.5 | 1140.6 | I | GG,DC | 2 | 105 | 140 | |
| | | SGMR | 1215.0 | 1216.0 | III | | 1 | 30 | 55 | |
| | | SVTO | 1215.0 | 1216.0 | III | | 1 | 25 | 81 | |
| | | ONDR | 1215.3 | 1218.0 | DCIM | GG | 2 | 800X | 1681 | |
| | | SVTO | 1314.0 | 1314.0 | III | | 1 | 25 | 46 | |
| | | SVTO | 1330.0 | 1330.0 | III | | 1 | 25 | 49 | |
| | | SGMR | 1331.0 | 1331.0 | III | | 1 | 30 | 45 | |
| | | SVTO | 1446.0 | 1448.0 | III | | 2 | 25 | 180 | |
| | | ONDR | 1446.5 | 1447.3 | DCIM | | 1 | 2000X | 4500X | |
| | | ONDR | 1446.5 | 1447.4 | DCIM | G | 1 | 800X | 2000X | |
| | | BLEN | 1446.8 | 1447.8 | DCIM | C | 2 | 1200X | 3100 | |
| | | HOLL | 1447.0 | 1448.0 | III | | 1 | 25 | 175 | |
| | | SGMR | 1448.0 | 1448.0 | III | | 1 | 30 | 70 | |
| | | ONDR | 1529.0 | 1532.5 | DCIM | GG | 2 | 800X | 2000X | |
| | | ONDR | 1529.2 | 1532.0 | DCIM | GG | 1 | 2000X | 3943 | |
| | | BLEN | 1530.0 | 1532.7 | DCIM | P | 2 | 1200X | 2200 | |
| | | HOLL | 1530.0 | 1533.0 | III | | 2 | 25 | 153 | |
| | | SGMR | 1530.0 | 1533.0 | III | | 3 | 30 | 80 | |
| | | SVTO | 1530.0 | 1532.0 | V | | 2 | 25 | 180 | |
| | | PALE | 1742.0 | 0405.0 | III | N | 1 | 25 | 180 | |
| | | SGMR | 1742.0 | 1759.0 | III | N | 1 | 30 | 60 | |
| | | HOLL | 1758.0 | 1802.0 | III | | 1 | 25 | 136 | |
| | | HOLL | 1808.0 | 2345.0 | III | N | 1 | 25 | 89 | |
| 2030 | 2400 | CULG | 2030.0E | 2227.0 | III | N | 1 | 57X | 180 | |
| | | HOLL | 2226.0 | 2231.0 | III | | 1 | 25 | 180 | |
| 2007 | 2400 | HIRA | 2227.5 | 2231.5 | III | G | 2 | 25X | 300 | |
| | | CULG | 2228.0 | 2232.0 | III | G | 2 | 57X | 1400 | |
| | | CULG | 2234.0 | 2246.0 | III | GG | 1 | 57X | 1400 | |
| | | HIRA | 2235.0 | 2243.5 | III | G | 3 | 25X | 460 | |
| | | HOLL | 2239.0 | 2244.0 | III | | 2 | 25 | 180 | |
| | | CULG | 2240.0 | 2242.0 | III | G | 3 | 57X | 1800X | |
| | | SGMR | 2240.0 | 2242.0 | III | | 2 | 30 | 80 | |
| | | HOLL | 2243.0 | 2248.0 | II | | 1 | 25 | 180 | ESS 0595 |
| | | PALE | 2243.0 | 2246.0 | II | | 2 | 25 | 80 | ESS 0825 |
| | | HIRA | 2243.5 | 2246.0 | II | | 3 | 90 | 120 | |
| | | HIRA | 2243.5 | 2246.0 | II | | 3 | 140 | 300 | |
| | | CULG | 2244.0 | 2249.0 | II | FN | 3 | 57X | 150 | |
| | | CULG | 2244.0 | 2255.0 | II | SH | 1 | 57X | 300 | ESS 750 |
| | | HIRA | 2244.0 | 2245.0 | III | B | 3 | 60 | 200 | |
| | | HIRA | 2246.5 | 2250.0 | III | G | 3 | 25X | 500 | |
| | | CULG | 2247.0 | 2248.0 | III | G | 3 | 57X | 1800X | |
| | | LEAR | 2252.0 | 0432.0 | CONT | | 1 | 73 | 180 | |
| | | CULG | 2254.0 | 2400.0D | III | S,C | 2 | 57X | 200 | |
| | | LEAR | 2335.0 | 0234.0 | III | N | 1 | 25 | 180 | |
| | | HOLL | 2337.0 | 0110.0 | CONT | | 1 | 25 | 180 | |
| | | HIRA | 2343.0 | 2357.0 | III | G | 2 | 90 | 200 | |
| | | CULG | 2358.0 | 2400.0D | III | G | 2 | 300 | 1000 | |

# SOLAR RADIO NOISE STORM AT 164 MHZ
## FROM NANCAY RADIOHELIOGRAPH
AUGUST 2001

| | HELIOGRAPHICS POSITIONS MEAN VALUES[1] | | IMP[2] | OBSERVING TIME[3] | |
|---|---|---|---|---|---|
| DAY | E-W | S-N | | START( UT) | END(UT) |
| 05/08/01 | +0.25 | -0.31 | II | 8H29 E | 15H27 D |
| 05/08/01 | +0.31 | +0.40 | II | 8H29 E | 15H27 D |
| 05/08/01 | +0.56 | -0.45 | I | 8H29 E | 15H27 D |
| 06/08/01 | -1.02 | -0.11 | I | 12H46 | 14H31 |
| 06/08/01 | -0.36 | -0.37 | II | 8H56 E | 14H31 D |
| 06/08/01 | +0.14 | +0.11 | I | 8H56 E | 12H36 |
| 07/08/01 | -0.02 | +0.74 | I | 8H26 E | 15H26 D |
| 07/08/01 | +0.70 | +0.23 | I | 8H26 E | 15H26 D |
| 07/08/01 | +0.70 | +0.60 | I | 8H26 E | 15H26 D |
| 08/08/01 | -0.81 | -0.42 | I | 9H50 | 15H26 D |
| 08/08/01 | -0.64 | -0.73 | II | 8H26 E | 15H26 D |
| 08/08/01 | +0.64 | +0.91 | I | 8H26 E | 15H26 D |
| 09/08/01 | +0.56 | -0.42 | III | 8H26 E | 15H26 D |
| 09/08/01 | +0.78 | +0.87 | III | 8H26 E | 15H26 D |
| 09/08/01 | +1.30 | +0.64 | I | 8H26 E | 15H26 D |
| 10/08/01 | +0.06 | -0.26 | I | 8H26 E | 12H20 |
| 10/08/01 | +0.98 | +0.93 | I | 8H26 E | 12H48 |
| 11/08/01 | +1.33 | +0.93 | III | 8H26 E | 15H26 D |
| 12/08/01 | +0.96 | +0.81 | I | 8H26 E | 10H45 |
| 24/08/01 | -1.40 | -0.62 | I | 8H48 E | 12H50 |
| 25/08/01 | -0.60 | -0.78 | I | 8H23 E | 15H23 d |
| 26/08/01 | -0.60 | -0.51 | II | 8H22 E | 15H22 D |
| 27/08/01 | -0.16 | -0.64 | II | 8H40 E | 15H23 D |
| 27/08/01 | +0.22 | -0.68 | II | 8H40 E | 15H23 D |
| 28/08/01 | -0.99 | -0.47 | I | 8H48 E | 15H22 D |
| 28/08/01 | +0.37 | -0.68 | I | 8H48 E | 15H22 D |
| 29/08/01 | -1.41 | +0.54 | I | 8H48 E | 15H22 D |
| 29/08/01 | +0.65 | -0.74 | I | 10H30 | 12H40 |
| 30/08/01 | -1.01 | +0.70 | I | 11H20 | 13H24 |
| 30/08/01 | -0.76 | -0.39 | I | 8H28 E | 11H50 |
| 30/08/00 | -0.43 | -0.64 | II | 10H40 | 15H22 D |
| 31/08/01 | -0.65 | -0.20 | II | 11H20 | 15H21 D |
| 31/08/01 | -0.42 | -0.06 | II | 11H20 | 15H21 D |

[1] POSITIVE E-W AND S-N COORDINATES CORRESPOND TO THE N-W QUADRANT
[2] IMP1: FLUX< 5 SFU IMP2: 5< FLUX < 20 SFU IMP3: 20< FLUX <100 SFU
IMP4: 100< FLUX <300 SFU IMP5> 300 SFU
[3] E NOISE STORM IN PROGRESS AT THE BEGINNING OF THE NANCAY OBSERVATIONS
D NOISE STORM IN PROGRESS AT THE END OF THE NANCAY OBSERVATIONS

# SOLAR RADIO NOISE STORM AT 327 MHZ FROM NANCAY RADIOHELIOGRAPH

AUGUST 2001

| | HELIOGRAPHICS POSITIONS MEAN VALUES[1] | | IMP[2] | OBSERVING TIME[3] | |
|---|---|---|---|---|---|
| DAY | E-W | S-N | | START(UT) | END(UT) |
| 05/08/01 | +0.25 | +0.25 | I | 8H29 E | 15H27 D |
| 05/08/01 | +0.34 | -0.34 | I | 8H29 E | 15H27 D |
| 06/08/01 | -1.09 | -0.12 | I | 8H56 E | 14H31 D |
| 06/08/01 | -0.06 | -0.40 | I | 8H56 E | 14H31 D |
| 06/08/01 | +0.08 | +0.14 | I | 8H56 E | 14H31 D |
| 06/08/01 | +0.11 | +0.39 | I | 8H56 E | 14H31 D |
| 06/08/01 | +0.45 | +0.26 | I | 8H56 E | 14H31 D |
| 07/08/01 | -0.90 | -0.25 | I | 8H26 E | 15H26 D |
| 07/08/01 | +0.20 | -0.37 | I | 8H26 E | 15H26 D |
| 07/08/01 | +0.76 | +0.37 | II | 8H26 E | 15H26 D |
| 08/08/01 | -0.81 | -0.28 | II | 8H26 E | 15H26 D |
| 08/08/01 | +0.47 | -0.42 | I | 8H26 E | 15H26 D |
| 09/08/01 | -0.93 | -0.33 | I | 8H26 E | 15H26 D |
| 09/08/01 | +0.59 | -0.37 | II | 8H26 E | 15H26 D |
| 09/08/01 | +1.01 | +0.62 | I | 13H15 | 15H26 D |
| 10/08/01 | -0.82 | -0.31 | I | 8H26 E | 15H26 D |
| 10/08/01 | -0.02 | -0.26 | I | 8H26 E | 15H26 D |
| 10/08/01 | +0.87 | -0.36 | I | 8H26 E | 15H26 D |
| 11/08/01 | +0.12 | -0.31 | I | 8H26 E | 15H26 D |
| 11/08/01 | +1.18 | +0.54 | I | 8H26 E | 15H26 D |
| 12/08/01 | -0.54 | -0.28 | I | 8H26 E | 15H26 D |
| 13/08/01 | -0.84 | +0.12 | I | 8H44 E | 15H26 D |
| 13/08/01 | +0.67 | -0.25 | I | 8H44 E | 15H26 D |
| 14/08/01 | +0.84 | -0.25 | I | 13H35 | 15H25 D |
| 26/08/01 | +1.16 | -0.22 | II | 8H22 E | 15H22 D |
| 27/08/01 | +1.15 | -0.20 | III | 8H40 E | 15H23 D |
| 28/08/01 | -0.90 | -0.45 | I | 8H48 E | 15H22 D |
| 28/08/01 | -0.67 | +0.28 | I | 8H48 E | 15H22 D |
| 29/08/01 | -0.71 | -0.45 | I | 8H48 E | 15H22 D |
| 30/08/01 | -0.50 | -0.43 | II | 8H28 E | 12H20 |
| 31/08/01 | -0.43 | +0.00 | II | 8H21 E | 15H21 D |
| 31/08/01 | -0.22 | -0.64 | II | 12H11 | 15H21 D |

**18, 19 AUGUST NO DATA**

**OTHERS DAYS: NO DETECTABLE NOISE STORM**

- For the days marked by an asterisk, intense ionopheric gravity waves are observed during the whole day. Without a mode detailed analysis leading to increased uncertainties in the deviation , the positions which are indicated are estimated within 0.2 R

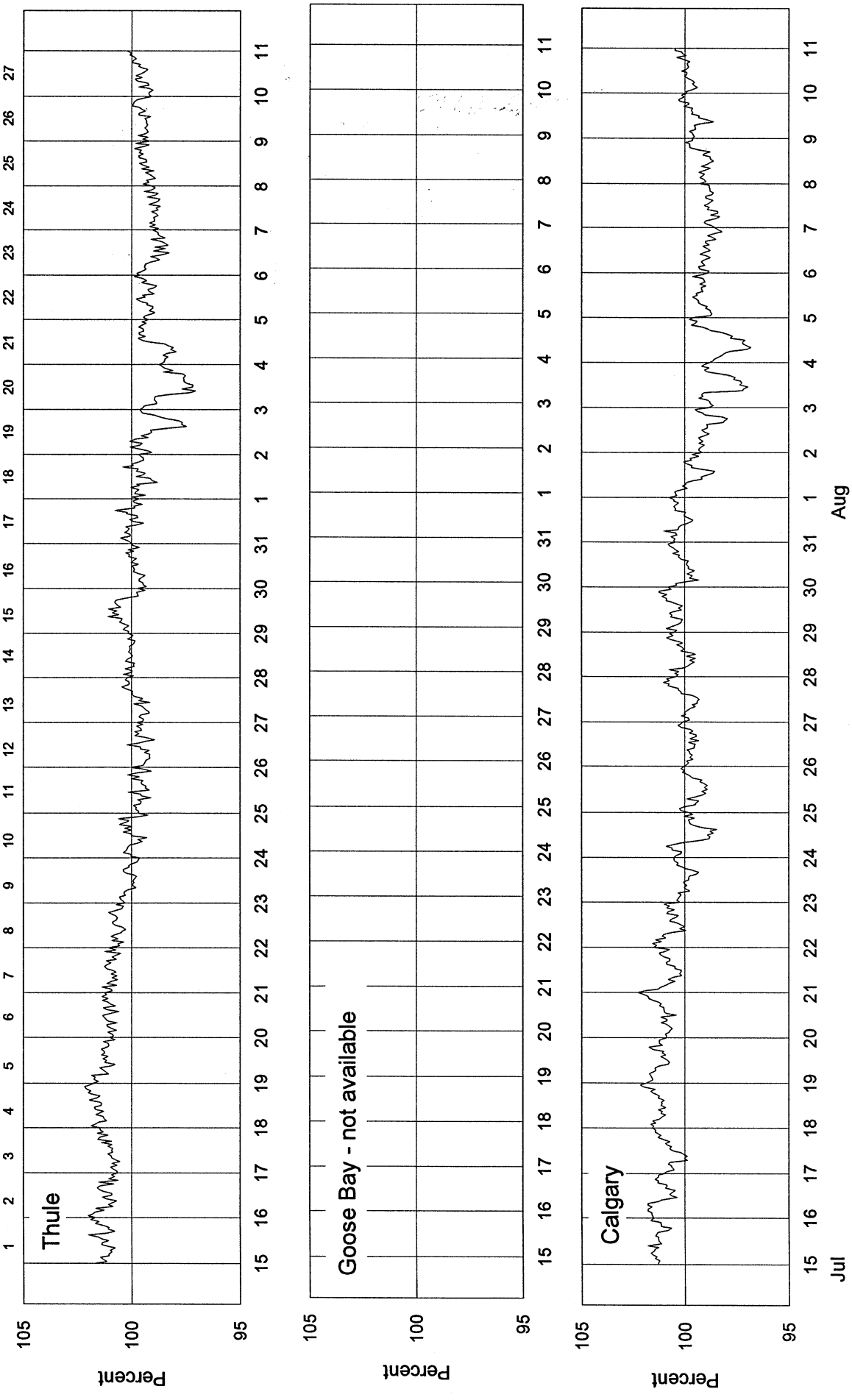
*** importance not well determined due to the proximity off the very strong other source

# COSMIC RAY INDICES
## (Neutron Monitor)
### August 2001

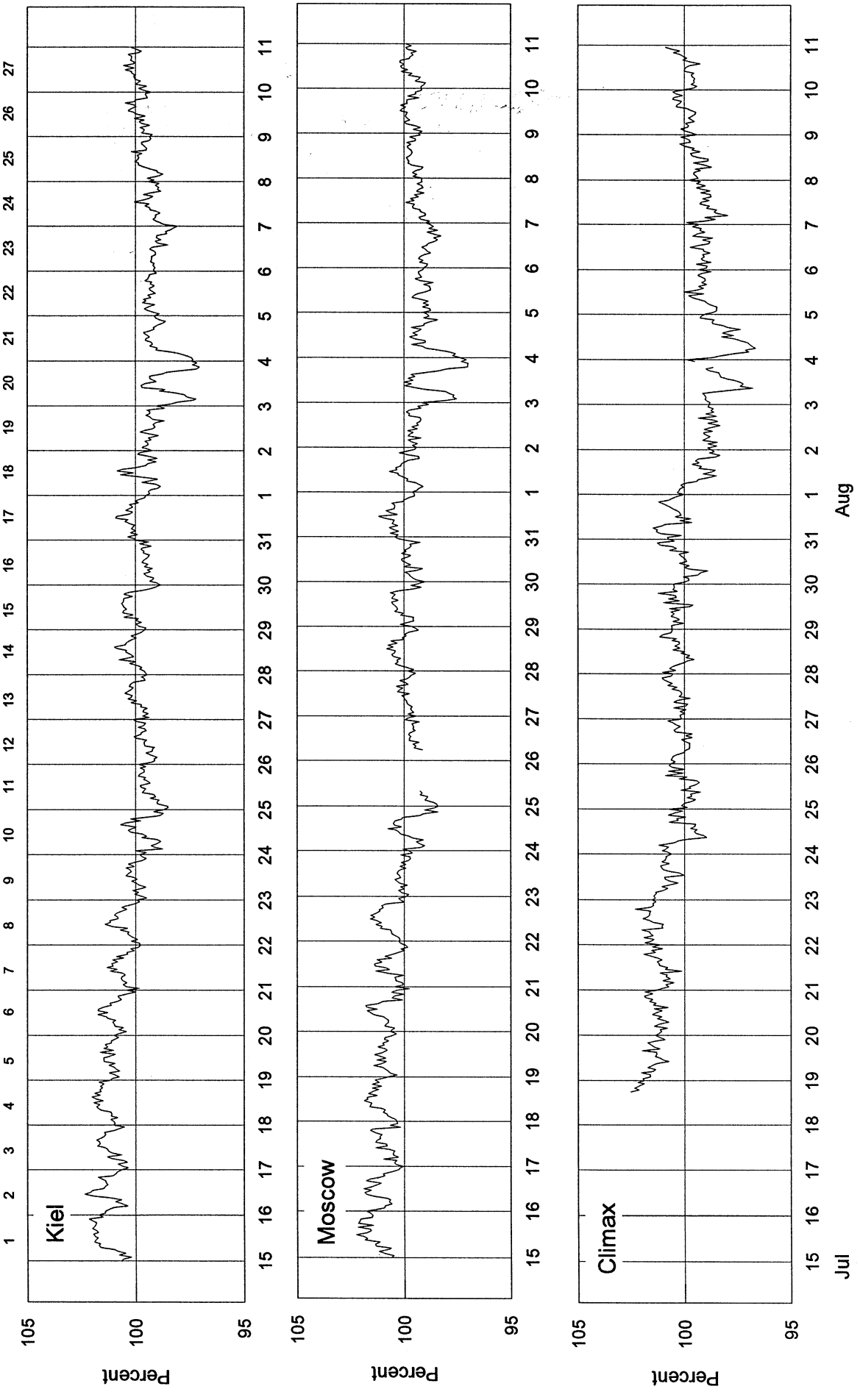
| Day | THULE Average (cts/h)/100 | GOOSE BAY Average (cts/h)/100 | CALGARY Average (cts/h)/300 | KIEL Average (cts/h)/100 | MOSCOW Average (cts/h)/64 | CLIMAX Average (cts/h)/100 | BEIJING Average (cts/h)/256 | HALEAKALA Average (cts/h)/1000 |
|---|---|---|---|---|---|---|---|---|
| 1 | 4047.1 | not | 3554.2 | 5671.7 | 8435.7 | 3753.3 | 1872.4 | 3484.4 |
| 2 | 4023.1 | available | 3528.2 | 5656.2 | 8408.2 | 3733.7 | 1863.2 | 3480.0 |
| 3 | 3988.7 | | 3505.3 | 5603.3 | 8322.4 | 3717.5 | 1855.4 | 3477.9 |
| 4 | 4018.5 | | 3501.8 | 5629.4 | 8356.0 | 3702.3 | 1849.3 | 3481.2 |
| 5 | 4032.5 | | 3535.0 | 5657.7 | 8374.0 | 3745.0 | 1857.7 | 3503.5 |
| 6 | 4019.2 | | 3525.7 | 5639.5 | 8353.9 | 3747.0 | 1864.3 | 3498.4 |
| 7 | 4019.5 | | 3520.8 | 5647.8 | 8391.4 | 3740.7 | 1862.6 | 3498.1 |
| 8 | 4037.0 | | 3535.3 | 5669.3 | 8416.0 | 3761.0 | 1870.0 | 3503.0 |
| 9 | 4040.7 | | 3551.3 | 5684.2 | 8426.1 | 3778.0 | 1872.9 | 3504.9 |
| 10 | 4044.1 | | 3560.8 | 5695.9 | 8422.4 | 3775.3 | 1877.1 | 3510.0 |
| 11 | 4077.6 | | 3577.5 | 5707.1 | 8471.0 | 3791.2 | 1877.0 | 3521.7 |
| 12 | 4083.7 | | 3584.8 | 5694.4 | 8474.4 | 3790.5 | 1872.9 | 3525.5 |
| 13 | 4059.2 | | 3544.2 | 5678.8 | 8451.0 | 3773.9 | 1879.0( 2) | 3522.0 |
| 14 | 4045.7 | | 3560.3 | 5650.2 | 8436.9 | 3780.9 | 1872.2(21) | 3498.2 |
| 15 | 4080.7 | | 3576.7 | 5703.5 | 8512.7 | 3803.2 | 1879.6 | 3511.4 |
| 16 | 4105.0 | | 3593.5 | 5721.0 | 8521.7 | 3822.5 | 1885.6 | 3508.7 |
| 17 | 4033.4 | | 3548.5 | 5661.9 | 8420.2 | 3788.4 | 1870.6 | 3482.3 |
| 18 | 3933.5 | | 3442.0 | 5543.0 | 8224.1 | 3658.1 | 1844.3 | 3451.6 |
| 19 | 3984.7 | | 3482.0 | 5571.1 | 8274.7 | 3690.8 | 1861.1 | 3464.3 |
| 20 | 4012.6 | | 3508.0 | 5601.7 | 8325.7 | 3712.4 | 1867.1 | 3472.7 |
| 21 | 4023.3 | | 3521.7 | 5618.1 | 8358.1 | 3732.0 | 1866.3 | 3479.5 |
| 22 | 4013.2 | | 3501.3 | 5582.4 | 8316.7 | 3719.6 | 1865.9 | 3473.8 |
| 23 | 3973.9 | | 3475.5 | 5564.0 | 8295.7 | 3697.2 | 1861.4 | 3471.9 |
| 24 | 3928.3 | | 3496.0 | 5563.8 | 8300.9 | 3709.5 | 1867.7 | 3483.1 |
| 25 | 3965.0 | | 3516.8 | 5597.5 | 8359.2 | 3722.2 | 1868.5 | 3491.3 |
| 26 | 3976.7 | | 3487.7 | 5567.0 | 8313.2 | 3692.8 | 1866.9 | 3483.2 |
| 27 | 3945.1 | | 3461.2 | 5536.7 | 8251.3 | 3664.3 | 1856.3 | 3452.6 |
| 28 | 3790.7 | | 3324.7 | 5383.0 | 8041.7 | 3501.1 | 1817.9 | 3371.2 |
| 29 | 3803.5 | | 3321.5 | 5353.3 | 7989.0 | 3505.5 | 1811.7 | 3377.2 |
| 30 | 3811.9 | | 3332.8 | 5382.8 | 8024.4 | 3523.3 | 1829.0 | 3397.3 |
| 31 | 3834.7 | | 3359.8 | 5421.5 | 8084.5 | 3569.4 | 1845.2 | 3435.1 |
| Mean | 3992.0 | | 3501.1 | 5601.9 | 8334.0 | 3712.9 | 1861.6 | 3477.9 |

For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours, and for Haleakala, whenever the sum of all three sections falls below 60 hours.

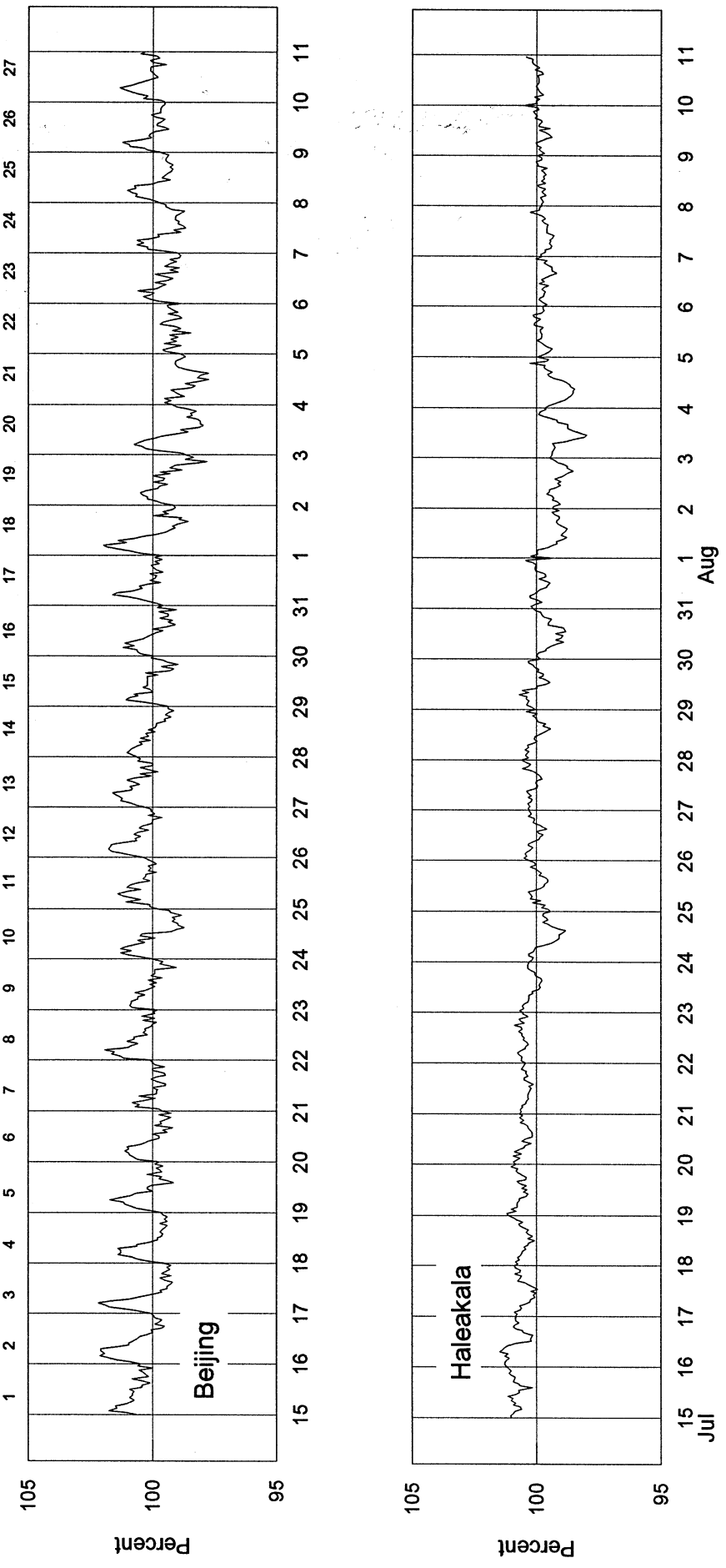
# COSMIC RAY INDICES
## (Neutron Monitor)
Bartels Rotation 2293 - Beginning 15 Jul 2001



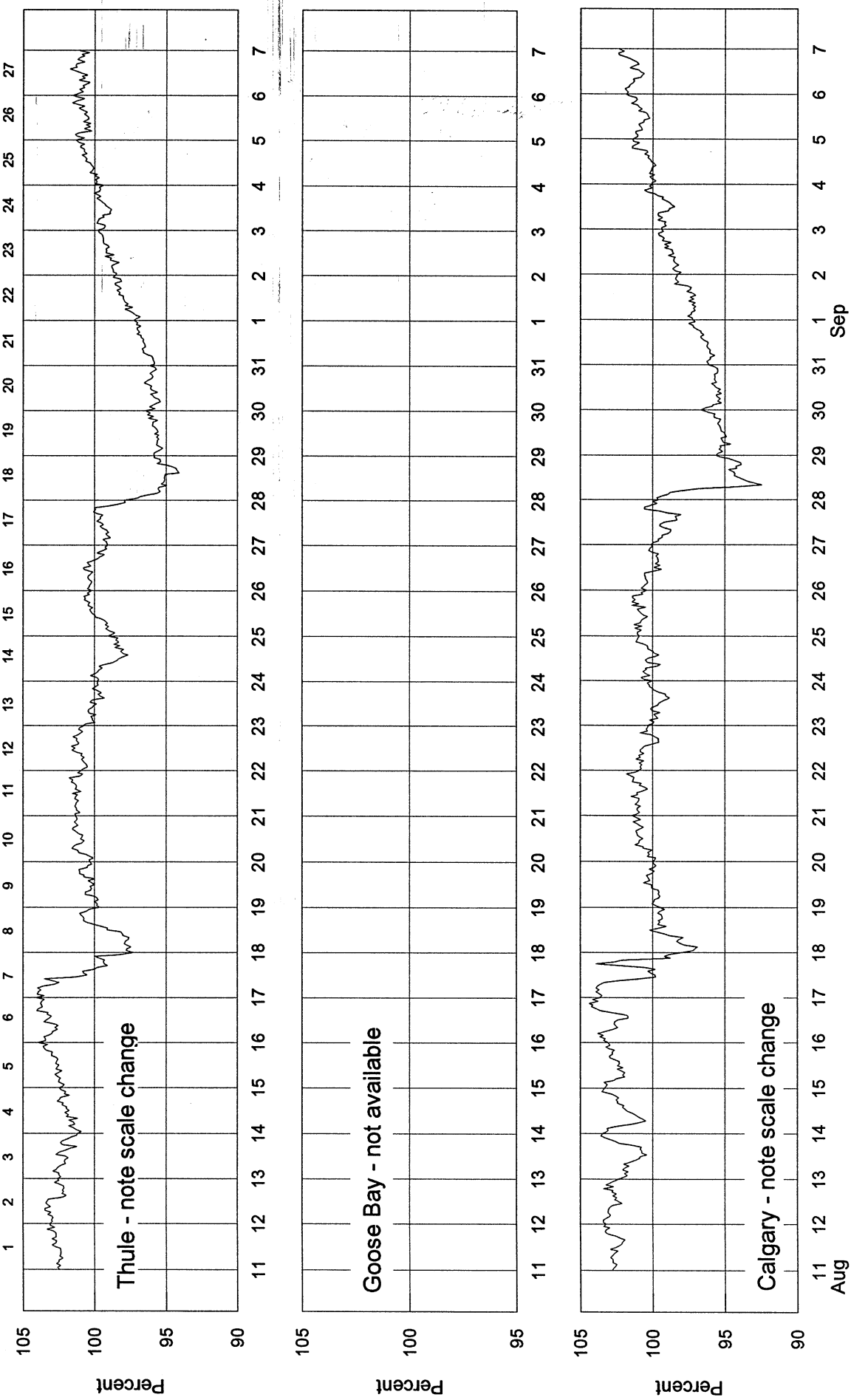
# COSMIC RAY INDICES
## (Neutron Monitor)
Bartels Rotation 2293 - Beginning 15 Jul 2001



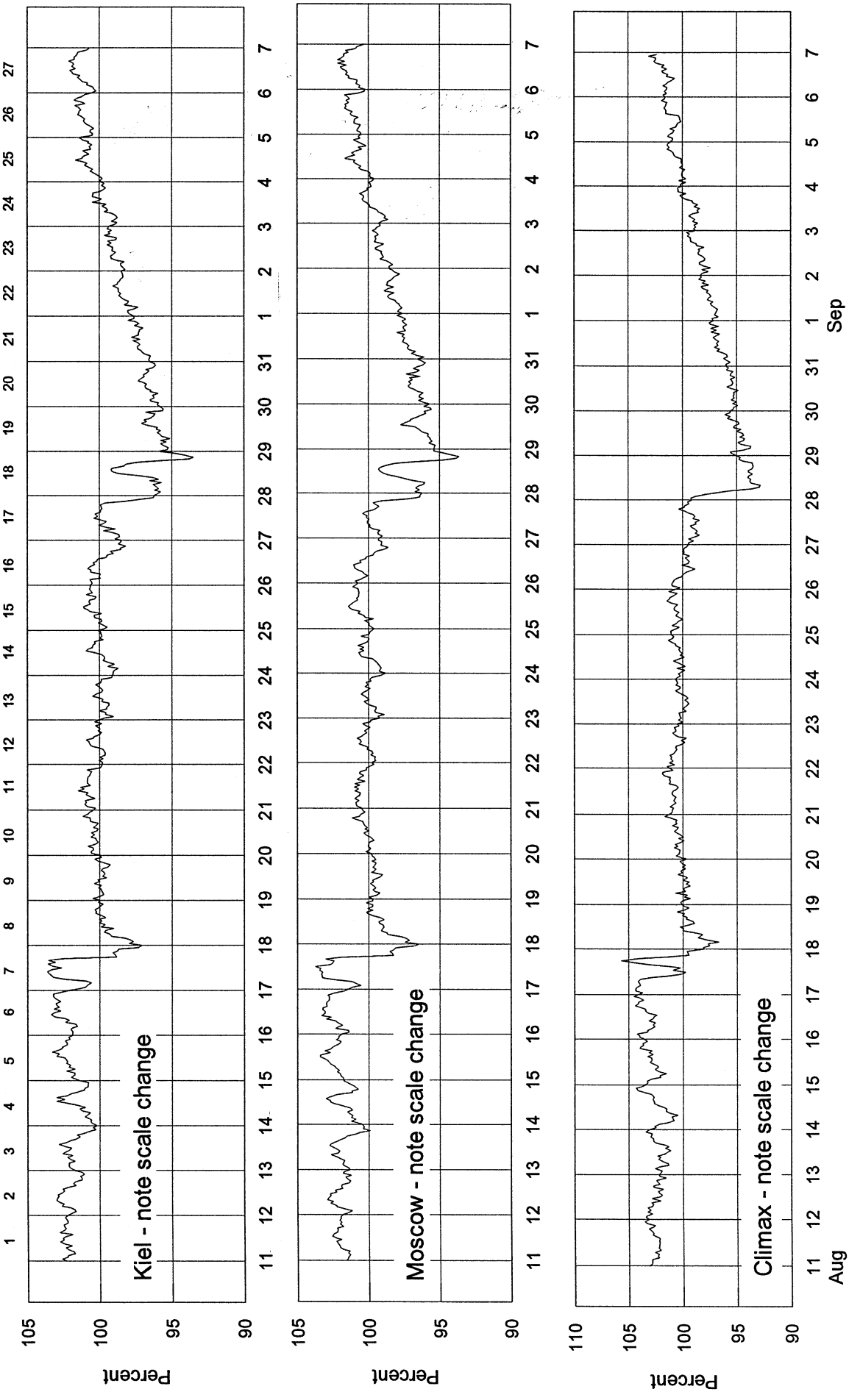
# COSMIC RAY INDICES
## (Neutron Monitor)
Bartels Rotation 2293 - Beginning 15 Jul 2001



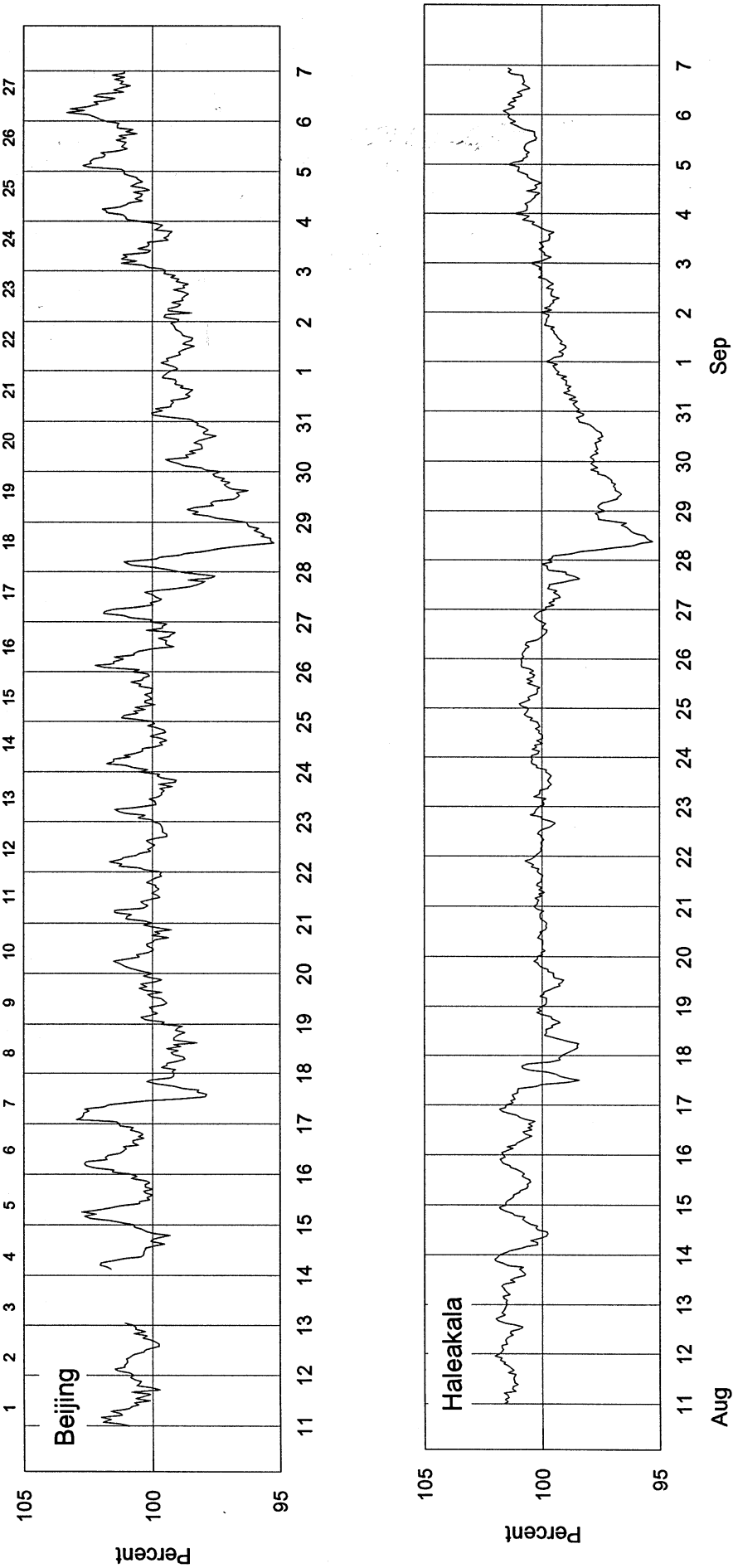
# COSMIC RAY INDICES
## (Neutron Monitor)
Bartels Rotation 2294 - Beginning 11 Aug 2001



# COSMIC RAY INDICES
## (Neutron Monitor)
Bartels Rotation 2294 - Beginning 11 Aug 2001

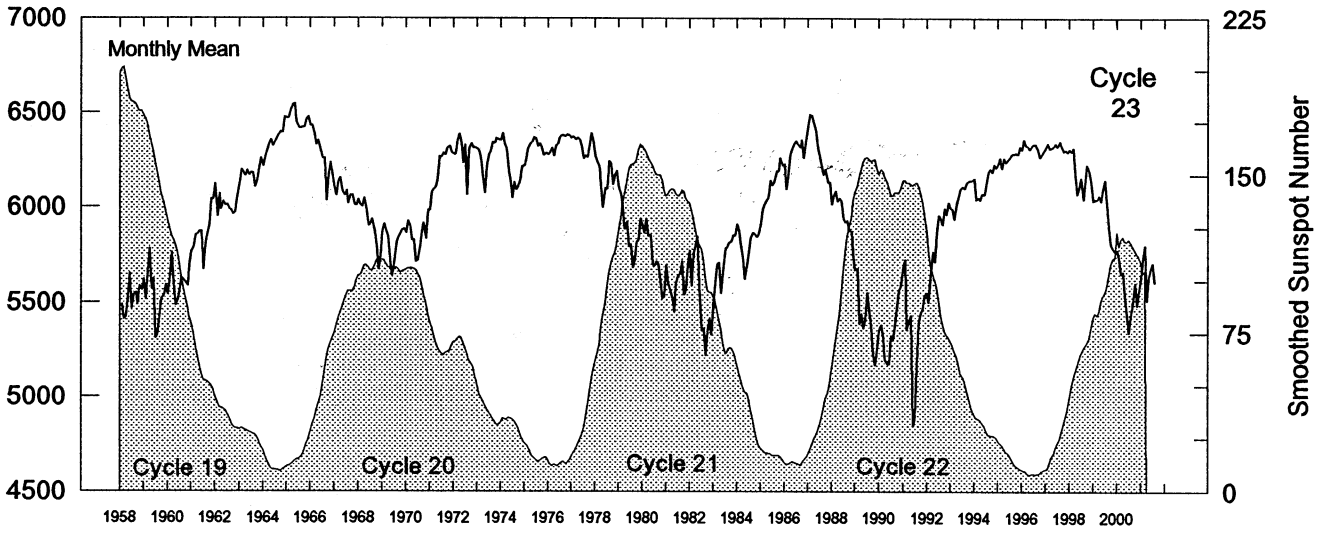


# COSMIC RAY INDICES
## (Neutron Monitor)
Bartels Rotation 2294 - Beginning 11 Aug 2001



# Kiel Neutron Monitor Pressure-Corrected Values
# Jan 1958 - Aug 2001






| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1958 | 5481 | 5488 | 5409 | 5417 | 5523 | 5651 | 5466 | 5538 | 5553 | 5485 | 5584 | 5561 | 5513 |
| 1959 | 5623 | 5515 | 5659 | 5783 | 5569 | 5625 | 5307 | 5328 | 5420 | 5518 | 5536 | 5593 | 5540 |
| 1960 | 5539 | 5628 | 5764 | 5596 | 5480 | 5509 | 5557 | 5628 | 5620 | 5607 | 5586 | 5692 | 5601 |
| 1961 | 5766 | 5793 | 5853 | 5856 | 5872 | 5874 | 5672 | 5804 | 5859 | 5898 | 6046 | 6041 | 5861 |
| 1962 | 6122 | 5949 | 6072 | 5989 | 6030 | 6010 | 6013 | 5991 | 5982 | 5963 | 5971 | 6052 | 6012 |
| 1963 | 6125 | 6197 | 6191 | 6163 | 6194 | 6168 | 6185 | 6182 | 6103 | 6133 | 6197 | 6260 | 6175 |
| 1964 | 6215 | 6253 | 6287 | 6331 | 6355 | 6321 | 6347 | 6366 | 6383 | 6399 | 6393 | 6475 | 6344 |
| 1965 | 6474 | 6469 | 6506 | 6542 | 6545 | 6451 | 6424 | 6420 | 6423 | 6424 | 6467 | 6475 | 6468 |
| 1966 | 6433 | 6432 | 6375 | 6330 | 6353 | 6300 | 6258 | 6258 | 6033 | 6168 | 6236 | 6172 | 6279 |
| 1967 | 6101 | 6061 | 6139 | 6155 | 6088 | 6061 | 6086 | 6016 | 6064 | 6063 | 6014 | 6009 | 6071 |
| 1968 | 6041 | 6011 | 6001 | 6048 | 5997 | 5901 | 5910 | 5937 | 5878 | 5805 | 5673 | 5739 | 5912 |
| 1969 | 5876 | 5909 | 5872 | 5845 | 5686 | 5640 | 5700 | 5812 | 5843 | 5864 | 5879 | 5887 | 5818 |
| 1970 | 5863 | 5928 | 5906 | 5830 | 5831 | 5716 | 5719 | 5803 | 5885 | 5915 | 5832 | 5985 | 5851 |
| 1971 | 5985 | 6081 | 6094 | 6103 | 6151 | 6268 | 6265 | 6286 | 6275 | 6314 | 6322 | 6288 | 6203 |
| 1972 | 6281 | 6278 | 6351 | 6387 | 6344 | 6232 | 6328 | 6065 | 6306 | 6334 | 6313 | 6318 | 6295 |
| 1973 | 6309 | 6298 | 6250 | 6155 | 6074 | 6220 | 6271 | 6296 | 6341 | 6340 | 6365 | 6360 | 6273 |
| 1974 | 6353 | 6391 | 6331 | 6308 | 6201 | 6139 | 6047 | 6132 | 6090 | 6113 | 6139 | 6215 | 6205 |
| 1975 | 6217 | 6267 | 6308 | 6334 | 6341 | 6370 | 6363 | 6320 | 6334 | 6313 | 6272 | 6286 | 6310 |
| 1976 | 6275 | 6281 | 6314 | 6269 | 6325 | 6331 | 6370 | 6380 | 6379 | 6375 | 6383 | 6380 | 6339 |
| 1977 | 6366 | 6371 | 6355 | 6366 | 6357 | 6322 | 6254 | 6272 | 6263 | 6317 | 6391 | 6355 | 6332 |
| 1978 | 6271 | 6242 | 6215 | 6113 | 5998 | 6101 | 6095 | 6241 | 6232 | 6117 | 6167 | 6193 | 6165 |
| 1979 | 6104 | 6063 | 6006 | 5883 | 5923 | 5794 | 5806 | 5682 | 5723 | 5820 | 5827 | 5942 | 5881 |
| 1980 | 5905 | 5862 | 5942 | 5850 | 5854 | 5702 | 5690 | 5717 | 5704 | 5611 | 5522 | 5528 | 5741 |
| 1981 | 5697 | 5600 | 5569 | 5517 | 5447 | 5600 | 5642 | 5650 | 5717 | 5539 | 5564 | 5702 | 5604 |
| 1982 | 5772 | 5586 | 5755 | 5799 | 5848 | 5582 | 5347 | 5362 | 5217 | 5349 | 5414 | 5329 | 5530 |
| 1983 | 5481 | 5606 | 5702 | 5711 | 5549 | 5659 | 5787 | 5785 | 5814 | 5820 | 5852 | 5849 | 5718 |
| 1984 | 5911 | 5880 | 5799 | 5740 | 5622 | 5706 | 5753 | 5837 | 5867 | 5856 | 5844 | 5864 | 5807 |
| 1985 | 5911 | 5986 | 6016 | 6038 | 6049 | 6142 | 6114 | 6135 | 6193 | 6192 | 6260 | 6220 | 6105 |
| 1986 | 6229 | 6093 | 6176 | 6280 | 6308 | 6336 | 6350 | 6331 | 6315 | 6356 | 6259 | 6359 | 6283 |
| 1987 | 6429 | 6489 | 6484 | 6443 | 6410 | 6319 | 6273 | 6217 | 6171 | 6198 | 6131 | 6131 | 6308 |
| 1988 | 6013 | 6064 | 6085 | 6030 | 6047 | 6033 | 5945 | 5922 | 5931 | 5880 | 5872 | 5761 | 5965 |
| 1989 | 5673 | 5678 | 5385 | 5441 | 5360 | 5407 | 5552 | 5460 | 5378 | 5228 | 5167 | 5241 | 5414 |
| 1990 | 5348 | 5381 | 5313 | 5197 | 5177 | 5173 | 5324 | 5297 | 5382 | 5471 | 5563 | 5584 | 5351 |
| 1991 | 5696 | 5726 | 5355 | 5405 | 5431 | 4841 | 4882 | 5162 | 5390 | 5443 | 5466 | 5540 | 5361 |
| 1992 | 5553 | 5500 | 5624 | 5766 | 5713 | 5869 | 5956 | 5942 | 5905 | 5994 | 5960 | 6024 | 5817 |
| 1993 | 5996 | 5992 | 5937 | 6026 | 6061 | 6094 | 6108 | 6099 | 6129 | 6137 | 6142 | 6141 | 6072 |
| 1994 | 6150 | 6042 | 6052 | 6067 | 6070 | 6068 | 6129 | 6189 | 6203 | 6183 | 6226 | 6209 | 6132 |
| 1995 | 6225 | 6260 | 6205 | 6260 | 6234 | 6250 | 6267 | 6279 | 6281 | 6285 | 6279 | 6319 | 6262 |
| 1996 | 6301 | 6354 | 6330 | 6324 | 6306 | 6325 | 6332 | 6331 | 6303 | 6262 | 6277 | 6294 | 6312 |
| 1997 | 6313 | 6337 | 6313 | 6314 | 6324 | 6336 | 6317 | 6347 | 6319 | 6295 | 6301 | 6289 | 6317 |
| 1998 | 6305 | 6293 | 6312 | 6177 | 6069 | 6101 | 6154 | 6042 | 6149 | 6220 | 6190 | 6124 | 6178 |
| 1999 | 6034 | 6040 | 6041 | 6062 | 6032 | 6100 | 6140 | 6023 | 5898 | 5805 | 5780 | 5765 | 5977 |
| 2000 | 5778 | 5729 | 5650 | 5661 | 5537 | 5441 | 5339 | 5425 | 5487 | 5602 | 5481 | 5542 | 5556 |
| 2001 | 5629 | 5736 | 5800 | 5509 | 5631 | 5678 | 5707 | 5602 | | | | | 5662 |

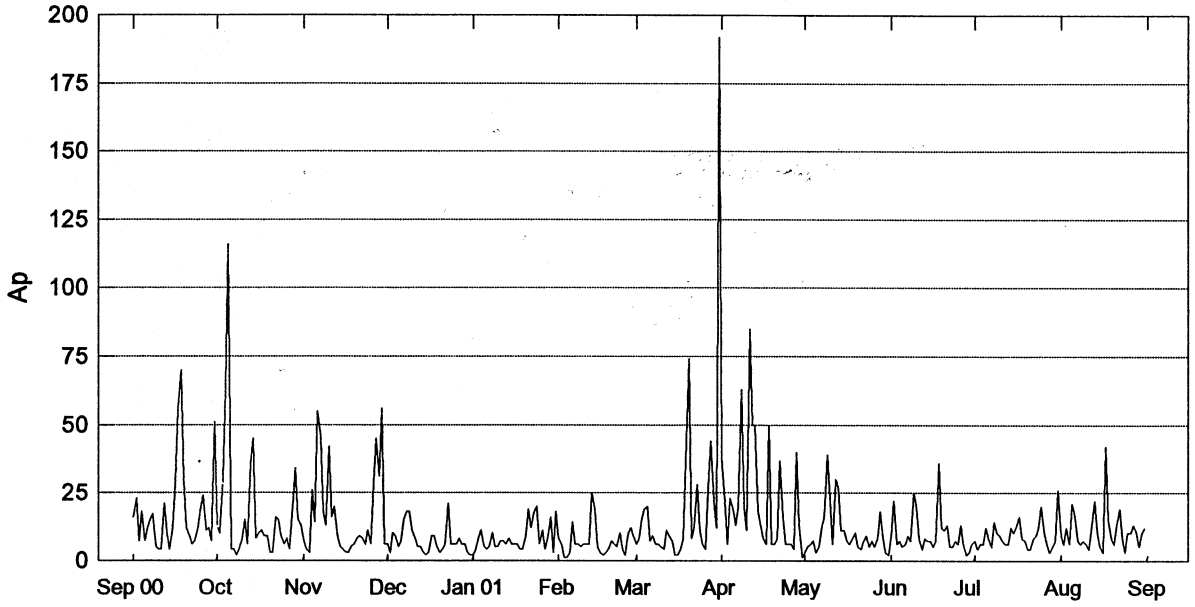
Multiply table entries by 100 to obtain hourly counting rate. Kiel, Germany: N54, E10, Alt= 54 m, Cutoff Rigidity= 2.32GV.

# Geomagnetic Activity Indices
## August 2001

| Day | | Kp Three-Hourly Indices 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Sum | Ap | Cp | Km Three-Hourly Indices 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | aa Provisional Am | N | S | M | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 4- | 2- | 2- | 3- | 2+ | 2 | 1+ | 2- | 17 | 9 | 0.5 | 3+ | 2- | 2o | 3o | 2o | 3- | 1+ | 2- | 19 | 22 | 15 | 20 | 17 | |
| 2 | Q6 | 1 | 1+ | 2 | 1+ | 2 | 2+ | 1 | 1- | 12- | 6 | 0.2 | 1+ | 1+ | 3- | 2- | 2- | 2o | 1o | 1o | 11 | 13 | 9 | 10 | 12 | C |
| 3 | | 2+ | 2- | 4+ | 3- | 2 | 3- | 2 | 2+ | 20 | 12 | 0.7 | 3- | 2o | 4o | 3- | 2+ | 2+ | 2+ | 2o | 23 | 29 | 18 | 27 | 20 | |
| 4 | Q9 | 1+ | 2- | 1+ | 1+ | 2- | 2+ | 2 | 2 | 14- | 6 | 0.3 | 2- | 2- | 2o | 2- | 2- | 3- | 2- | 2o | 15 | 14 | 9 | 7 | 15 | C |
| 5 | D3 | 2 | 2- | 3+ | 4- | 5 | 5- | 3+ | 3- | 26+ | 21 | 1.1 | 2+ | 2- | 4- | 4o | 4o | 4- | 3- | 2o | 34 | 38 | 22 | 25 | 35 | |
| 6 | D5* | 2+ | 3+ | 3 | 3+ | 4 | 3+ | 3- | 3+ | 25+ | 17 | 0.9 | 2o | 3o | 3o | 4o | 4o | 3o | 3- | 3o | 34 | 41 | 42 | 36 | 47 | |
| 7 | | 3- | 2+ | 1+ | 2+ | 2- | 1 | 2- | 1+ | 14+ | 7 | 0.4 | 3- | 3- | 2- | 3- | 2- | 1+ | 1+ | 2- | 16 | 15 | 11 | 16 | 10 | C |
| 8 | Q7 | 3- | 1+ | 1+ | 1+ | 2- | 1- | 2 | 1 | 12 | 6 | 0.3 | 2o | 1+ | 2- | 2+ | 2- | 1- | 1+ | 1o | 11 | 16 | 10 | 15 | 11 | CC |
| 9 | | 1 | 2 | 1 | 1- | 2 | 2+ | 2+ | 3 | 14+ | 7 | 0.4 | 1o | 3o | 1+ | 1o | 2+ | 2o | 2o | 3- | 15 | 19 | 14 | 11 | 22 | |
| 10 | Q10 | 3- | 2- | 2 | 1+ | 1- | 1- | 2 | 2 | 13 | 6 | 0.3 | 2+ | 2o | 2+ | 1+ | 1- | 1- | 2- | 2- | 12 | 13 | 10 | 14 | 9 | CK |
| 11 | Q4 | 2 | 1- | 0+ | 0 | 0+ | 1- | 1- | 3- | 7+ | 4 | 0.1 | 3- | 1- | 0+ | 0+ | 0+ | 0+ | 1- | 2+ | 8 | 10 | 6 | 7 | 9 | CK |
| 12 | | 1+ | 1 | 1+ | 4- | 2- | 3+ | 3 | 3+ | 19- | 12 | 0.7 | 1+ | 1+ | 1+ | 3+ | 2- | 3o | 3- | 3o | 21 | 27 | 23 | 19 | 31 | |
| 13 | D2 | 4 | 5+ | 3 | 3 | 3 | 3 | 3+ | 3- | 27+ | 22 | 1.1 | 3+ | 5o | 3o | 3o | 3- | 2+ | 3o | 3- | 35 | 42 | 28 | 45 | 24 | |
| 14 | | 2 | 2+ | 2- | 3- | 3 | 2+ | 2+ | 3- | 19 | 10 | 0.6 | 2o | 2+ | 2+ | 3o | 3- | 3- | 2o | 2+ | 19 | 25 | 18 | 19 | 24 | |
| 15 | Q3 | 2- | 2- | 1+ | 1- | 1 | 1 | 2 | 2- | 11 | 5 | 0.2 | 1+ | 2- | 1+ | 1+ | 1+ | 1+ | 2+ | 2o | 12 | 14 | 6 | 8 | 13 | CK |
| 16 | Q1 | 1- | 1 | 0+ | 1- | 1- | 1- | 1- | 1 | 6- | 3 | 0.1 | 1- | 1- | 1- | 1+ | 1- | 1- | 1- | 1- | 5 | 7 | 4 | 6 | 5 | CK |
| 17 | D1 | 1 | 1 | 1- | 3+ | 4+ | 5 | 7 | 6+ | 29- | 42 | 1.5 | 1- | 0+ | 1o | 4- | 4o | 5- | 6- | 5+ | 56 | 54 | 51 | 10 | 95 | |
| 18 | | 3 | 2+ | 3+ | 1- | 4- | 3+ | 3 | 3+ | 23- | 15 | 0.8 | 3- | 2+ | 3o | 1o | 3o | 3- | 3- | 3o | 23 | 30 | 22 | 23 | 29 | |
| 19 | | 0+ | 2+ | 3 | 3 | 1+ | 2- | 2+ | 0+ | 14+ | 8 | 0.4 | 0o | 2+ | 3+ | 3+ | 2- | 2- | 2- | 1- | 16 | 16 | 19 | 26 | 10 | |
| 20 | Q8K | 0+ | 1- | 1- | 3- | 3- | 1+ | 2- | 2 | 12 | 6 | 0.3 | 0+ | 0+ | 1- | 2o | 2+ | 2- | 1+ | 2- | 10 | 14 | 9 | 9 | 15 | CC |
| 21 | | 1 | 2- | 1+ | 4- | 3 | 4- | 3+ | 3- | 20+ | 13 | 0.7 | 1+ | 2- | 2- | 3+ | 2+ | 3+ | 3- | 2+ | 21 | 28 | 19 | 18 | 29 | |
| 22 | D4* | 1+ | 2 | 3- | 4 | 4 | 3+ | 4 | 4+ | 26- | 19 | 1.0 | 2- | 2o | 3- | 4- | 4- | 3o | 3+ | 4o | 32 | 35 | 32 | 25 | 42 | |
| 23 | | 4- | 2+ | 3- | 1 | 2- | 1 | 1 | 1+ | 15- | 8 | 0.4 | 3+ | 3- | 3o | 1+ | 2- | 1o | 1o | 1+ | 16 | 19 | 12 | 23 | 8 | |
| 24 | Q2 | 1- | 1+ | 0+ | 1 | 1 | 1- | 0+ | 0 | 5+ | 3 | 0.1 | 1- | 1+ | 0+ | 1+ | 1o | 0+ | 0o | 0o | 4 | 5 | 5 | 6 | 4 | CC |
| 25 | | 0 | 1+ | 1- | 2+ | 3- | 3+ | 3+ | 3 | 17- | 10 | 0.6 | 1- | 1+ | 1o | 2+ | 3- | 3- | 3o | 3o | 18 | 20 | 17 | 11 | 26 | |
| 26 | | 3 | 2 | 3 | 2+ | 1+ | 2- | 3- | 3 | 19 | 10 | 0.6 | 3- | 2- | 3o | 3- | 2- | 1+ | 3- | 3- | 21 | 23 | 27 | 28 | 23 | |
| 27 | | 1+ | 2+ | 1 | 2- | 2+ | 2+ | 5- | 4- | 19+ | 13 | 0.7 | 1+ | 3o | 1+ | 2- | 2+ | 2o | 4- | 3+ | 22 | 21 | 18 | 11 | 28 | |
| 28 | | 4 | 3+ | 3- | 2 | 2 | 2- | 2 | 1 | 19- | 11 | 0.6 | 4o | 3o | 3o | 2+ | 2+ | 2- | 2- | 1o | 23 | 24 | 15 | 24 | 15 | |
| 29 | Q5 | 1 | 2- | 2 | 2+ | 1+ | 1+ | 1 | 1- | 11+ | 5 | 0.2 | 1+ | 2- | 2o | 3- | 1+ | 1o | 1- | 1o | 11 | 12 | 12 | 15 | 9 | CC |
| 30 | | 1- | 2 | 2- | 2+ | 3 | 4- | 3- | 1 | 17 | 10 | 0.5 | 1o | 2o | 2o | 2+ | 3- | 4- | 3- | 1o | 20 | 21 | 19 | 10 | 31 | |
| 31 | | 3- | 3- | 2+ | 3+ | 2- | 4 | 2 | 2 | 21- | 12 | 0.7 | 3- | 3- | 3- | 4- | 2- | 3+ | 1+ | 2o | 23 | 22 | 23 | 24 | 21 | |
| Mean | | | | | | | | | | | 11 | 0.55 | | | | | | | | | 19.5 | 22.3 | 17.6 | 19.9 | | |

| Day | Kn Three-Hourly Indices 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | An | Ks Three-Hourly Indices 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | As | Sa | Prov Ri | Ra | Rs | IMF |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3+ | 2o | 2+ | 3o | 3- | 3- | 1+ | 2+ | 21 | 3+ | 1+ | 2- | 3o | 1+ | 3- | 2- | 1o | 17 | 123.8 | 62 | 73 | 72 | | |
| 2 | 1+ | 1+ | 3- | 2o | 2+ | 2+ | 1+ | 1+ | 14 | 1o | 1+ | 2+ | 1+ | 1+ | 2- | 1- | 1- | 9 | 124.3 | 81 | 94 | 72 | | |
| 3 | 2+ | 2o | 4+ | 3o | 3- | 3- | 2o | 2o | 26 | 3- | 2o | 4- | 2o | 2- | 2- | 2+ | 2o | 20 | 135.5 | 93 | 111 | 84 | | |
| 4 | 1+ | 2- | 2o | 2- | 2o | 3- | 2o | 2o | 14 | 2o | 2o | 2o | 1+ | 2- | 3o | 2- | 2o | 15 | 152.7 | 115 | 132 | 103 | | |
| 5 | 2+ | 2o | 4- | 4o | 4+ | 4+ | 3o | 2+ | 39 | 2+ | 2- | 4- | 4- | 4- | 3o | 3- | 2- | 30 | 160.5 | 130 | 146 | 111 | | |
| 6 | 2+ | 3+ | 3o | 5- | 4o | 3+ | 3- | 3o | 39 | 2- | 3- | 3o | 4- | 4- | 3- | 2+ | 3o | 28 | 168.3 | 120 | 139 | 120 | | |
| 7 | 3- | 3o | 2o | 3o | 2o | 1+ | 2- | 2o | 18 | 3- | 2+ | 2- | 3- | 1o | 1o | 1o | 1o | 13 | 171.0 | 118 | 140 | 123 | | |
| 8 | 2o | 1+ | 2- | 2+ | 2o | 1o | 2- | 1+ | 12 | 2o | 1+ | 2- | 2+ | 1+ | 1- | 1- | 0+ | 9 | 171.5 | 117 | 133 | 123 | | |
| 9 | 1+ | 3- | 2- | 1+ | 3- | 2+ | 2+ | 3o | 18 | 1o | 3o | 1- | 0+ | 2o | 2- | 2- | 2+ | 12 | 167.8 | 104 | 111 | 119 | | |
| 10 | 3- | 2+ | 2+ | 1+ | 1o | 1- | 2- | 2- | 14 | 2o | 2- | 2o | 1+ | 0+ | 1- | 2- | 2- | 10 | 164.7 | 99 | 106 | 116 | | |
| 11 | 2+ | 1o | 1- | 0+ | 0+ | 1- | 1o | 2+ | 8 | 3o | 0+ | 0o | 0o | 0o | 0+ | 0+ | 3- | 8 | 169.5 | 112 | 131 | 121 | | |
| 12 | 2- | 1+ | 1+ | 4- | 2o | 3+ | 3o | 3+ | 24 | 1o | 1o | 1+ | 3- | 2- | 3- | 3- | 3o | 17 | 164.0 | 112 | 122 | 115 | | |
| 13 | 3+ | 5- | 3o | 3+ | 3o | 3- | 3+ | 3- | 37 | 3+ | 5o | 3o | 3o | 3- | 2o | 2+ | 2o | 33 | 155.5 | 91 | 95 | 106 | | |
| 14 | 3- | 3- | 2o | 3o | 3o | 3o | 2+ | 2+ | 23 | 1+ | 2o | 2+ | 3- | 2o | 2o | 1+ | 2o | 15 | 151.1 | 93 | 100 | 101 | | |
| 15 | 2- | 2o | 2- | 1+ | 1+ | 2- | 2+ | 2o | 13 | 1+ | 1+ | 1o | 1+ | 1+ | 1+ | 2o | 2+ | 11 | 150.5 | 106 | 118 | 101 | | |
| 16 | 1o | 1o | 1- | 2- | 1o | 1o | 1o | 1+ | 7 | 1- | 1- | 0+ | 1+ | 0+ | 0o | 0+ | 0+ | 3 | 146.2 | 127 | 124 | 96 | | |
| 17 | 1- | 0+ | 1+ | 4o | 4o | 5- | 6o | 6- | 59 | 1- | 0o | 1- | 3o | 4o | 5- | 6- | 5+ | 52 | 148.4 | 117 | 113 | 98 | | |
| 18 | 3- | 2+ | 3o | 1+ | 4- | 3o | 3- | 3+ | 27 | 2+ | 2+ | 3+ | 1- | 2+ | 2o | 2+ | 3- | 19 | 159.9 | 106 | 115 | 111 | | |
| 19 | 0+ | 2+ | 3+ | 3+ | 2o | 2+ | 2o | 1o | 19 | 0o | 2+ | 3o | 3o | 1o | 1+ | 2- | 1- | 14 | 161.3 | 100 | 110 | 112 | | |
| 20 | 0+ | 0+ | 1- | 3- | 3- | 2o | 2o | 2+ | 13 | 0+ | 1- | 1- | 1+ | 2- | 1+ | 1o | 1+ | 7 | 159.8 | 101 | 102 | 111 | | |
| 21 | 1+ | 2- | 2- | 3+ | 3- | 4- | 3o | 3- | 25 | 1+ | 1+ | 2- | 3o | 2- | 3o | 2o | 2+ | 17 | 163.9 | 110 | 125 | 115 | | |
| 22 | 2- | 2+ | 3- | 4- | 4- | 3o | 4- | 4- | 34 | 1+ | 2- | 3- | 3+ | 4- | 3- | 3o | 4+ | 30 | 165.2 | 112 | 126 | 116 | | |
| 23 | 3o | 2+ | 3o | 1+ | 2- | 1+ | 1+ | 1+ | 16 | 4- | 3o | 3o | 1o | 1+ | 1- | 1- | 1o | 17 | 173.4 | 119 | 124 | 125 | | |
| 24 | 1- | 1+ | 1- | 1+ | 1+ | 0+ | 0+ | 0+ | 6 | 0+ | 1o | 0o | 1o | 1- | 0+ | 0o | 0o | 3 | 178.7 | 116 | 114 | 131 | | |
| 25 | 0+ | 1+ | 1o | 3- | 3- | 3- | 3o | 3- | 19 | 1- | 1o | 1o | 2+ | 2+ | 2+ | 3o | 3o | 17 | 203.2 | 92 | 107 | 157 | | |
| 26 | 3- | 2- | 3o | 3o | 2o | 2- | 3o | 3- | 22 | 2+ | 2o | 3+ | 3- | 1+ | 1+ | 2+ | 3o | 20 | 193.8 | 101 | 113 | 147 | | |
| 27 | 1+ | 3- | 1+ | 2o | 3- | 2+ | 4o | 4- | 25 | 1+ | 3o | 1+ | 1+ | 2+ | 2- | 3+ | 3o | 20 | 195.9 | 119 | 125 | 150 | | |
| 28 | 4- | 3o | 3o | 2+ | 3- | 2o | 2- | 1+ | 23 | 4o | 3o | 3o | 2+ | 2- | 2- | 1+ | 1- | 22 | 203.1 | 128 | 123 | 157 | | |
| 29 | 1+ | 2- | 2+ | 3- | 2- | 1+ | 1o | 1+ | 13 | 1o | 2o | 2- | 3- | 1+ | 0+ | 0+ | 1o | 9 | 200.9 | 96 | 112 | 155 | | |
| 30 | 1o | 2- | 2- | 2+ | 3o | 4- | 3o | 1+ | 21 | 1o | 2+ | 2+ | 3- | 3- | 4- | 3- | 1o | 20 | 203.0 | 99 | 116 | 157 | | |
| 31 | 2+ | 2+ | 3- | 4- | 2- | 4- | 2- | 2o | 24 | 3o | 3- | 2+ | 4- | 2- | 3o | 1+ | 2o | 23 | 192.2 | 115 | 126 | 146 | | |
| Mean | | | | | | | | | 21.7 | | | | | | | | | 17.4 | 167.1 | 106.8 | 117.1 | 118.5 | | |

# Daily Average Indices Ap
## Sep 2000 -Aug 2001

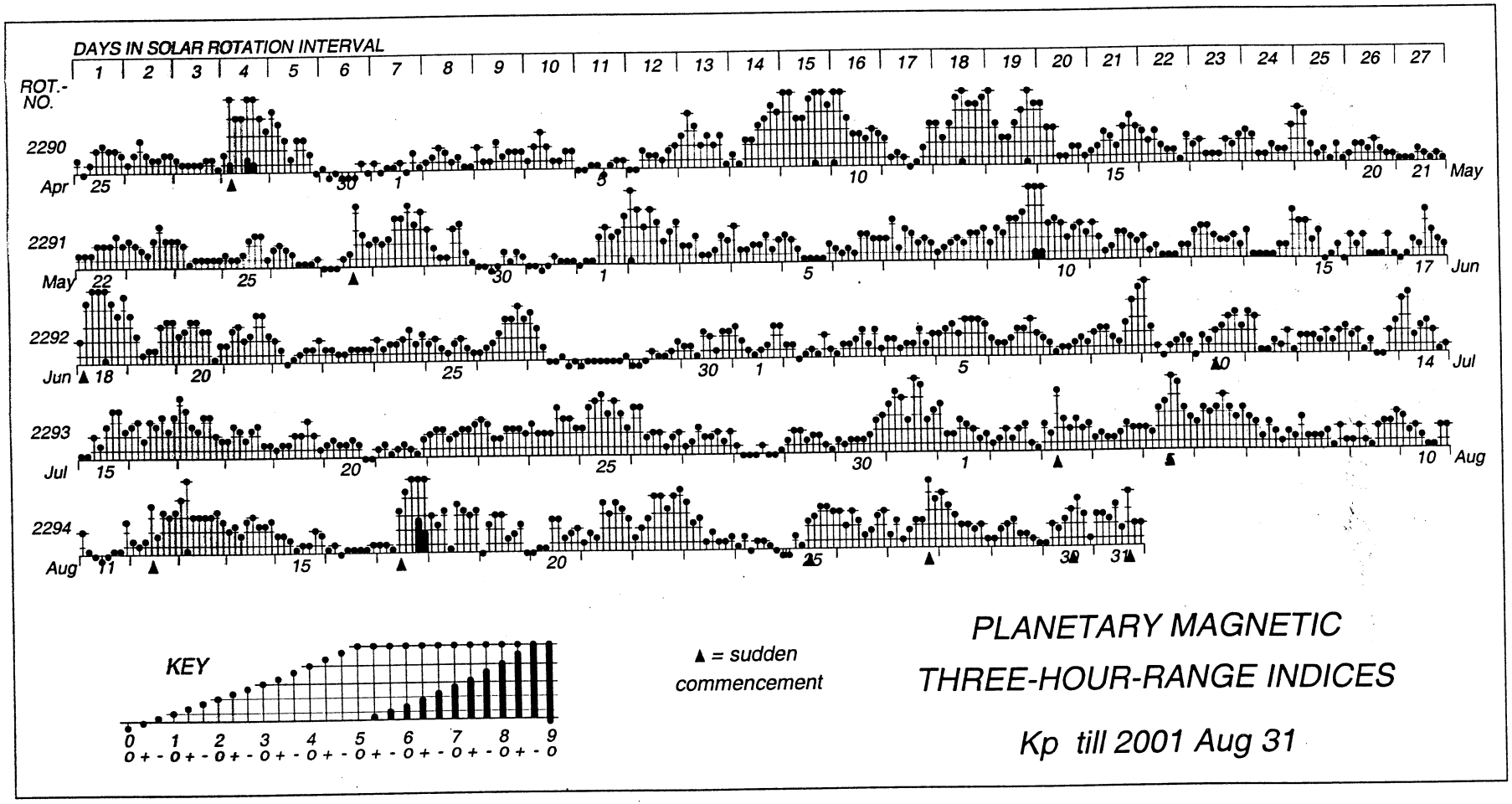



| Day | Sep 00 | Oct | Nov | Dec | Jan 01 | Feb | Mar | Apr | May | Jun | Jul | Aug |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 13 | 7 | 6 | 2 | 8 | 6 | 38 | 3 | 9 | 7 | 9 |
| 2 | 23 | 10 | 4 | 3 | 4 | 6 | 8 | 22 | 5 | 22 | 4 | 6 |
| 3 | 7 | 30 | 3 | 10 | 8 | 1 | 15 | 6 | 6 | 6 | 6 | 12 |
| 4 | 18 | 63 | 26 | 9 | 11 | 1 | 19 | 23 | 7 | 7 | 6 | 6 |
| 5 | 7 | 116 | 14 | 5 | 5 | 3 | 20 | 19 | 3 | 5 | 12 | 21 |
| 6 | 12 | 4 | 55 | 7 | 4 | 14 | 7 | 13 | 5 | 6 | 8 | 17 |
| 7 | 15 | 4 | 46 | 15 | 5 | 6 | 9 | 20 | 12 | 9 | 5 | 7 |
| 8 | 17 | 2 | 18 | 18 | 10 | 6 | 6 | 63 | 16 | 7 | 14 | 6 |
| 9 | 5 | 4 | 13 | 18 | 5 | 5 | 6 | 20 | 39 | 25 | 10 | 7 |
| 10 | 4 | 8 | 42 | 11 | 5 | 6 | 5 | 11 | 23 | 20 | 9 | 6 |
| 11 | 4 | 15 | 16 | 8 | 7 | 6 | 4 | 85 | 6 | 8 | 7 | 4 |
| 12 | 21 | 6 | 20 | 5 | 7 | 6 | 11 | 50 | 30 | 4 | 6 | 12 |
| 13 | 10 | 36 | 9 | 5 | 6 | 25 | 9 | 50 | 27 | 8 | 6 | 22 |
| 14 | 4 | 45 | 5 | 3 | 8 | 19 | 7 | 18 | 11 | 7 | 12 | 10 |
| 15 | 12 | 8 | 4 | 2 | 6 | 5 | 2 | 13 | 11 | 7 | 10 | 5 |
| 16 | 29 | 10 | 3 | 3 | 6 | 3 | 2 | 8 | 7 | 5 | 13 | 3 |
| 17 | 56 | 11 | 3 | 9 | 6 | 2 | 4 | 6 | 6 | 7 | 16 | 42 |
| 18 | 70 | 9 | 5 | 9 | 4 | 3 | 8 | 50 | 8 | 36 | 8 | 15 |
| 19 | 30 | 9 | 6 | 5 | 4 | 4 | 37 | 6 | 10 | 12 | 7 | 8 |
| 20 | 12 | 3 | 8 | 3 | 9 | 7 | 74 | 6 | 5 | 11 | 4 | 6 |
| 21 | 9 | 3 | 9 | 4 | 19 | 6 | 8 | 8 | 4 | 13 | 4 | 13 |
| 22 | 6 | 16 | 8 | 6 | 12 | 5 | 12 | 37 | 7 | 5 | 8 | 19 |
| 23 | 7 | 15 | 6 | 21 | 18 | 10 | 28 | 16 | 9 | 5 | 9 | 8 |
| 24 | 12 | 9 | 11 | 6 | 20 | 4 | 11 | 6 | 5 | 7 | 12 | 3 |
| 25 | 19 | 6 | 6 | 6 | 6 | 2 | 6 | 6 | 7 | 6 | 20 | 10 |
| 26 | 24 | 8 | 28 | 6 | 11 | 10 | 4 | 6 | 5 | 13 | 10 | 10 |
| 27 | 11 | 4 | 45 | 8 | 4 | 12 | 27 | 4 | 8 | 6 | 6 | 13 |
| 28 | 12 | 20 | 31 | 6 | 8 | 9 | 44 | 40 | 18 | 2 | 3 | 11 |
| 29 | 7 | 34 | 56 | 6 | 16 |  | 22 | 13 | 9 | 3 | 5 | 5 |
| 30 | 51 | 15 | 6 | 3 | 3 |  | 12 | 1 | 3 | 6 | 7 | 10 |
| 31 |  | 13 |  | 2 | 18 |  | 192 |  | 2 |  | 26 | 12 |
| Mean | 18 | 18 | 17 | 7 | 8 | 7 | 20 | 22 | 10 | 10 | 9 | 11 |

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

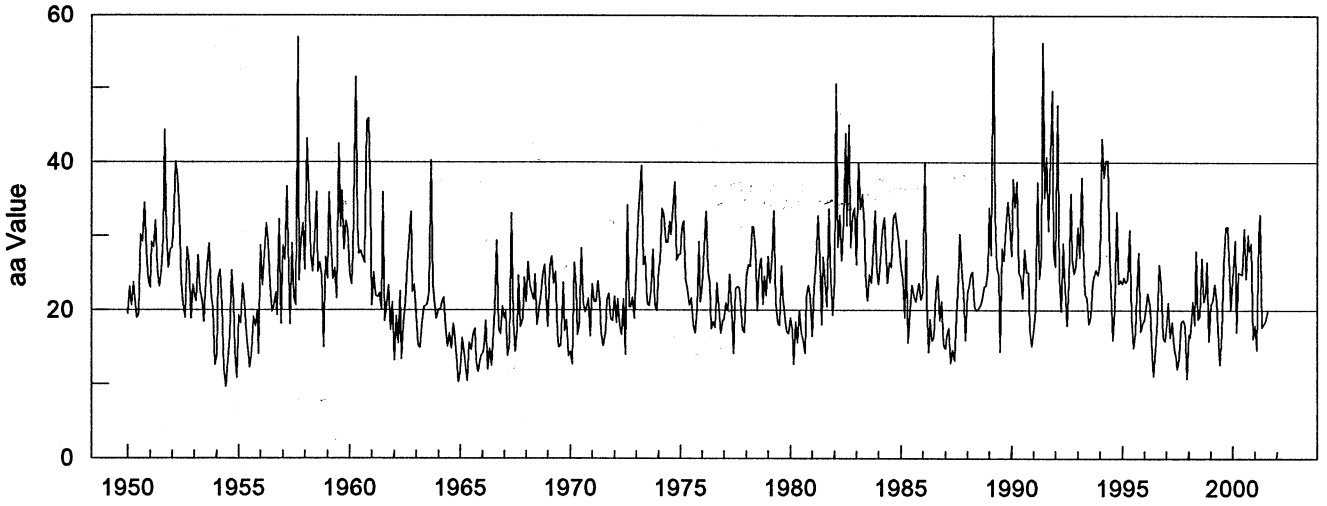
GeoForschungsZentraum Potsdam

Kp through August 31, 2001



# Monthly Mean aa Index Jan 1950 - Aug 2001



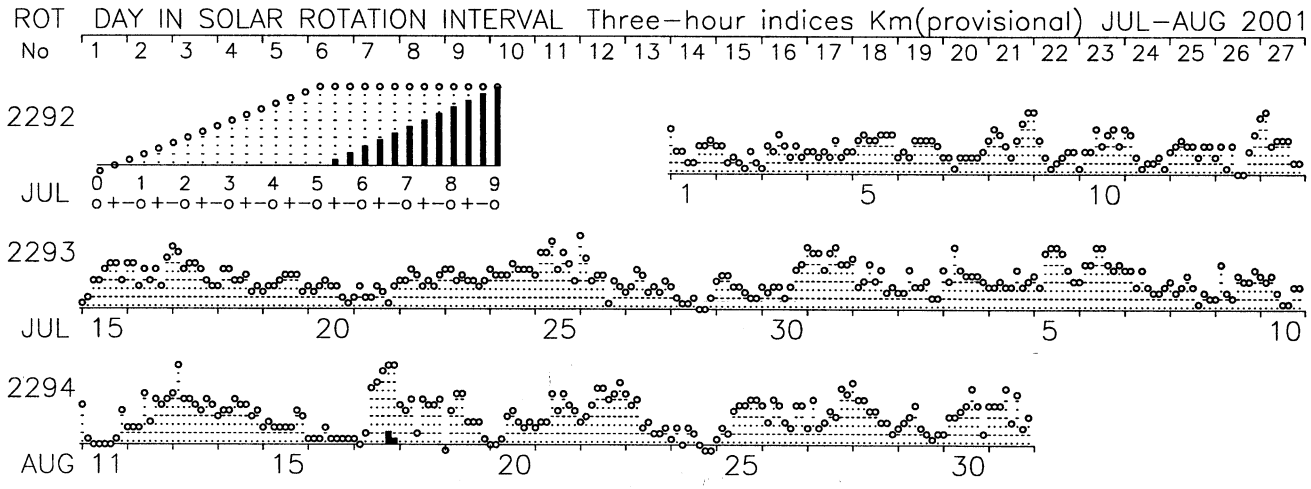



| Year | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Mean |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1950 | 19.5 | 23.2 | 20.6 | 23.8 | 21.7 | 19.0 | 19.5 | 30.2 | 29.3 | 34.5 | 28.0 | 24.0 | 24.4 |
| 1951 | 23.1 | 29.2 | 28.5 | 32.1 | 25.5 | 23.2 | 25.2 | 29.7 | 44.4 | 30.3 | 25.7 | 28.2 | 28.8 |
| 1952 | 28.5 | 34.3 | 40.1 | 38.0 | 33.1 | 23.8 | 20.7 | 19.0 | 28.5 | 26.4 | 18.9 | 23.4 | 27.9 |
| 1953 | 22.3 | 21.2 | 27.4 | 22.7 | 21.4 | 18.4 | 22.5 | 26.1 | 29.0 | 22.4 | 20.2 | 12.6 | 22.2 |
| 1954 | 13.9 | 24.5 | 25.5 | 20.6 | 12.0 | 9.7 | 13.1 | 16.5 | 25.4 | 21.1 | 14.5 | 10.9 | 17.3 |
| 1955 | 19.3 | 18.2 | 23.6 | 21.1 | 16.7 | 15.1 | 12.3 | 14.3 | 19.1 | 17.8 | 19.9 | 14.1 | 17.6 |
| 1956 | 28.7 | 23.3 | 27.6 | 31.7 | 29.3 | 23.5 | 19.8 | 20.7 | 22.4 | 19.3 | 32.3 | 18.2 | 24.7 |
| 1957 | 28.7 | 26.8 | 36.7 | 28.8 | 18.1 | 29.1 | 21.7 | 20.7 | 57.0 | 24.0 | 29.5 | 31.7 | 29.4 |
| 1958 | 25.5 | 43.2 | 36.1 | 27.6 | 25.2 | 29.7 | 36.0 | 25.1 | 26.5 | 24.7 | 15.0 | 27.2 | 28.5 |
| 1959 | 24.3 | 35.9 | 29.9 | 24.2 | 25.7 | 21.6 | 42.5 | 31.2 | 36.1 | 28.2 | 32.1 | 30.8 | 30.2 |
| 1960 | 25.2 | 23.5 | 27.6 | 51.5 | 31.6 | 27.6 | 28.1 | 27.2 | 26.4 | 45.6 | 45.9 | 34.5 | 32.9 |
| 1961 | 20.6 | 25.1 | 22.0 | 21.8 | 22.3 | 20.1 | 36.0 | 18.5 | 20.7 | 23.3 | 17.3 | 21.1 | 22.4 |
| 1962 | 13.2 | 19.2 | 15.5 | 22.6 | 13.4 | 18.1 | 21.0 | 26.2 | 29.8 | 33.3 | 22.5 | 23.5 | 21.5 |
| 1963 | 19.3 | 15.3 | 14.9 | 18.2 | 20.4 | 20.5 | 20.8 | 22.5 | 40.2 | 23.5 | 20.7 | 18.9 | 21.3 |
| 1964 | 20.1 | 20.1 | 21.0 | 21.7 | 17.5 | 15.1 | 16.9 | 14.8 | 18.2 | 16.9 | 13.8 | 10.3 | 17.2 |
| 1965 | 11.8 | 16.3 | 14.3 | 12.6 | 10.5 | 15.7 | 14.7 | 16.8 | 17.5 | 13.1 | 11.7 | 13.8 | 14.1 |
| 1966 | 14.2 | 14.8 | 18.6 | 12.0 | 14.8 | 12.5 | 17.1 | 20.0 | 29.4 | 17.5 | 16.8 | 20.5 | 17.3 |
| 1967 | 18.9 | 19.6 | 13.8 | 15.5 | 33.1 | 18.6 | 14.4 | 17.5 | 24.7 | 17.8 | 18.9 | 24.5 | 19.8 |
| 1968 | 21.1 | 26.5 | 23.3 | 22.2 | 21.4 | 24.9 | 18.0 | 20.1 | 22.0 | 24.8 | 26.2 | 20.3 | 22.6 |
| 1969 | 17.8 | 25.8 | 27.3 | 23.6 | 25.2 | 16.7 | 15.0 | 15.3 | 23.8 | 17.2 | 18.7 | 13.8 | 20.0 |
| 1970 | 14.4 | 12.7 | 26.4 | 23.1 | 16.6 | 18.3 | 28.4 | 21.0 | 19.7 | 20.6 | 21.6 | 16.5 | 19.9 |
| 1971 | 23.5 | 21.2 | 21.1 | 23.9 | 21.1 | 17.0 | 15.2 | 17.1 | 21.4 | 22.2 | 18.8 | 18.6 | 20.1 |
| 1972 | 21.9 | 18.3 | 21.5 | 18.1 | 16.6 | 21.5 | 14.0 | 34.2 | 20.4 | 20.4 | 21.8 | 18.9 | 20.6 |
| 1973 | 26.1 | 32.7 | 36.9 | 39.6 | 26.1 | 27.3 | 20.9 | 20.6 | 22.8 | 28.2 | 20.7 | 19.9 | 26.8 |
| 1974 | 25.8 | 26.4 | 33.7 | 32.9 | 29.2 | 29.2 | 32.0 | 30.2 | 33.7 | 37.3 | 26.8 | 27.5 | 30.4 |
| 1975 | 27.6 | 31.1 | 32.0 | 24.3 | 22.7 | 20.7 | 21.7 | 18.1 | 16.9 | 20.2 | 29.3 | 21.1 | 23.8 |
| 1976 | 23.3 | 28.5 | 33.4 | 25.4 | 23.7 | 17.5 | 18.4 | 17.7 | 23.7 | 20.4 | 16.9 | 18.6 | 22.3 |
| 1977 | 18.7 | 21.0 | 19.9 | 24.9 | 20.1 | 14.2 | 22.9 | 23.2 | 23.0 | 20.9 | 17.3 | 17.0 | 20.3 |
| 1978 | 24.6 | 26.2 | 25.9 | 31.3 | 31.2 | 28.3 | 19.9 | 25.6 | 27.0 | 20.8 | 24.6 | 22.0 | 25.6 |
| 1979 | 27.3 | 23.7 | 26.9 | 33.5 | 21.0 | 18.3 | 17.9 | 26.0 | 22.0 | 19.3 | 17.1 | 16.8 | 22.5 |
| 1980 | 19.0 | 17.3 | 12.7 | 18.4 | 15.6 | 20.0 | 17.0 | 15.9 | 14.2 | 21.9 | 23.3 | 21.7 | 18.1 |
| 1981 | 16.5 | 23.1 | 26.6 | 32.8 | 26.9 | 18.0 | 27.2 | 24.0 | 20.4 | 33.7 | 24.1 | 19.3 | 24.4 |
| 1982 | 24.2 | 50.6 | 28.5 | 32.9 | 26.7 | 32.1 | 43.9 | 31.4 | 45.1 | 28.5 | 33.0 | 33.8 | 34.2 |
| 1983 | 26.2 | 40.0 | 33.6 | 35.7 | 31.6 | 24.9 | 21.3 | 24.9 | 23.7 | 28.3 | 33.5 | 26.0 | 29.1 |
| 1984 | 23.5 | 26.7 | 30.7 | 32.5 | 27.2 | 23.7 | 26.4 | 25.8 | 32.6 | 33.1 | 31.0 | 29.0 | 28.5 |
| 1985 | 25.7 | 24.1 | 19.0 | 29.5 | 15.6 | 19.9 | 23.4 | 22.0 | 21.2 | 22.2 | 23.7 | 21.4 | 22.3 |
| 1986 | 22.4 | 40.0 | 21.1 | 14.3 | 18.8 | 15.9 | 16.3 | 22.3 | 24.7 | 18.6 | 21.2 | 15.3 | 20.9 |
| 1987 | 14.8 | 16.6 | 17.6 | 12.9 | 14.7 | 13.2 | 19.3 | 24.3 | 30.3 | 25.8 | 22.4 | 16.0 | 19.0 |
| 1988 | 22.4 | 23.4 | 24.8 | 25.2 | 20.5 | 20.0 | 20.2 | 20.6 | 21.4 | 23.2 | 23.3 | 25.5 | 22.5 |
| 1989 | 33.9 | 27.5 | 60.1 | 32.8 | 25.7 | 24.9 | 14.4 | 28.4 | 26.7 | 31.4 | 34.7 | 31.4 | 31.0 |
| 1990 | 27.4 | 37.8 | 33.9 | 37.4 | 25.1 | 24.6 | 21.6 | 28.2 | 25.1 | 25.1 | 17.4 | 15.2 | 26.6 |
| 1991 | 17.2 | 20.1 | 37.3 | 24.3 | 27.3 | 56.2 | 35.2 | 40.8 | 30.7 | 44.1 | 49.7 | 28.0 | 34.2 |
| 1992 | 25.9 | 47.7 | 24.5 | 19.8 | 29.1 | 24.8 | 17.9 | 24.1 | 35.8 | 27.0 | 25.0 | 26.1 | 27.3 |
| 1993 | 31.2 | 27.1 | 37.9 | 29.2 | 22.1 | 21.8 | 18.2 | 19.2 | 23.8 | 24.6 | 25.5 | 24.8 | 25.5 |
| 1994 | 26.5 | 43.2 | 37.9 | 40.2 | 40.2 | 27.2 | 20.6 | 16.0 | 20.2 | 33.3 | 23.6 | 24.1 | 29.4 |
| 1995 | 23.6 | 24.5 | 23.8 | 24.2 | 30.9 | 19.1 | 14.9 | 17.0 | 22.2 | 27.9 | 17.2 | 18.2 | 22.0 |
| 1996 | 18.8 | 20.8 | 22.3 | 20.5 | 14.0 | 11.1 | 14.7 | 18.8 | 26.2 | 23.5 | 16.3 | 15.9 | 18.6 |
| 1997 | 17.4 | 21.0 | 16.3 | 18.4 | 15.1 | 13.7 | 12.1 | 13.7 | 18.4 | 18.7 | 18.0 | 10.8 | 16.1 |
| 1998 | 16.8 | 16.4 | 21.2 | 18.0 | 28.1 | 18.8 | 19.3 | 27.0 | 21.1 | 22.4 | 26.5 | 15.9 | 21.0 |
| 1999 | 20.8 | 21.3 | 23.5 | 21.3 | 15.8 | 12.7 | 16.9 | 26.2 | 31.2 | 31.3 | 25.1 | 20.1 | 22.2 |
| 2000 | 24.2 | 29.4 | 17.1 | 25.1 | 25.0 | 24.9 | 31.1 | 24.3 | 30.2 | 28.1 | 29.1 | 16.1 | 25.4 |
| 2001 | 18.0 | 14.7 | 30.2 | 33.0 | 17.8 | 18.2 | 18.7 | 19.9 | | | | | 21.3 |

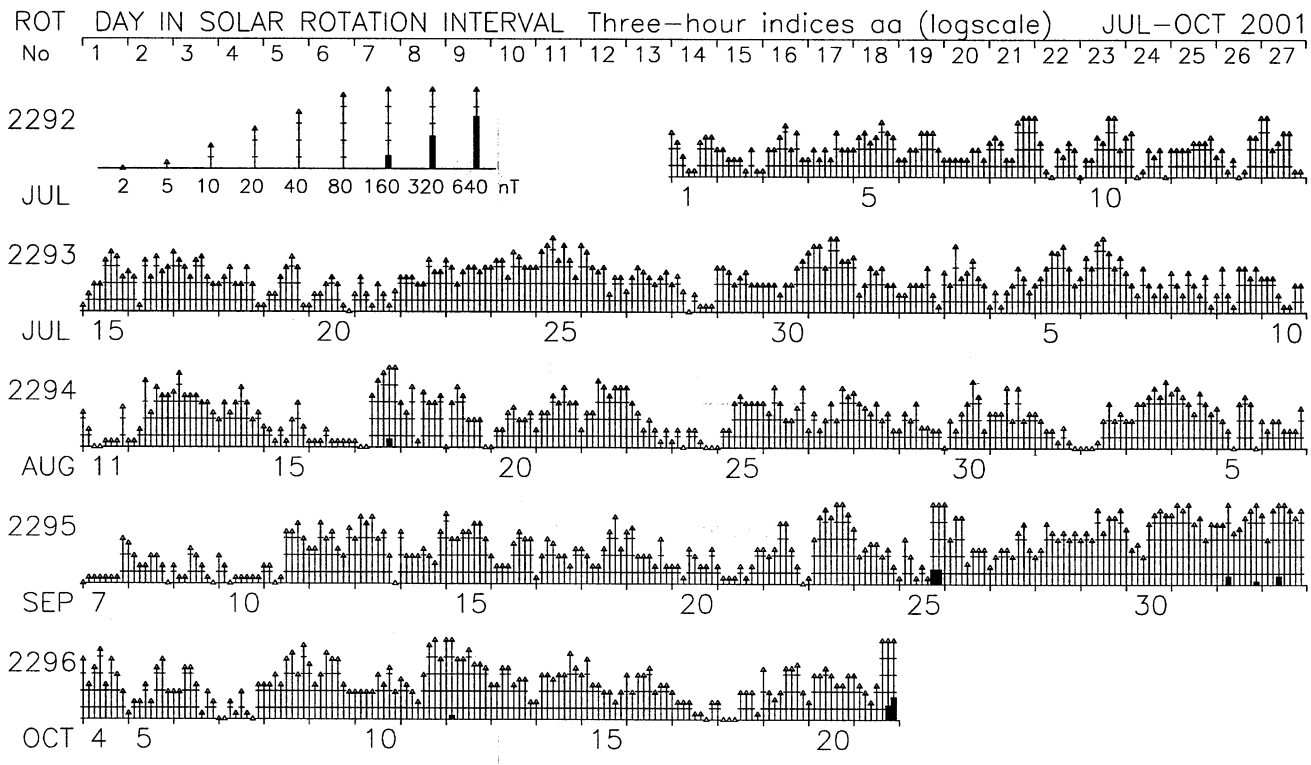
# PLANETARY GEOMAGNETIC ACTIVITY

## 3-HOUR-RANGE INDICES Km AND aa BY 27-DAY SOLAR ROTATION INTERVAL

ISGI PUBLICATION OFFICE - EMail : ISGI.PUBOFF@cetp.ipsl.fr
CETP, 4 Avenue de Neptune, F-94107 Saint Maur des Fosses CEDEX - FRANCE




Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.




Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.

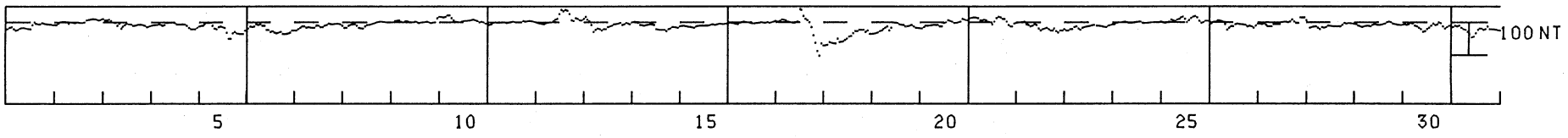
WDC FOR GEOMAGNETISM, KYOTO UNIVERSITY

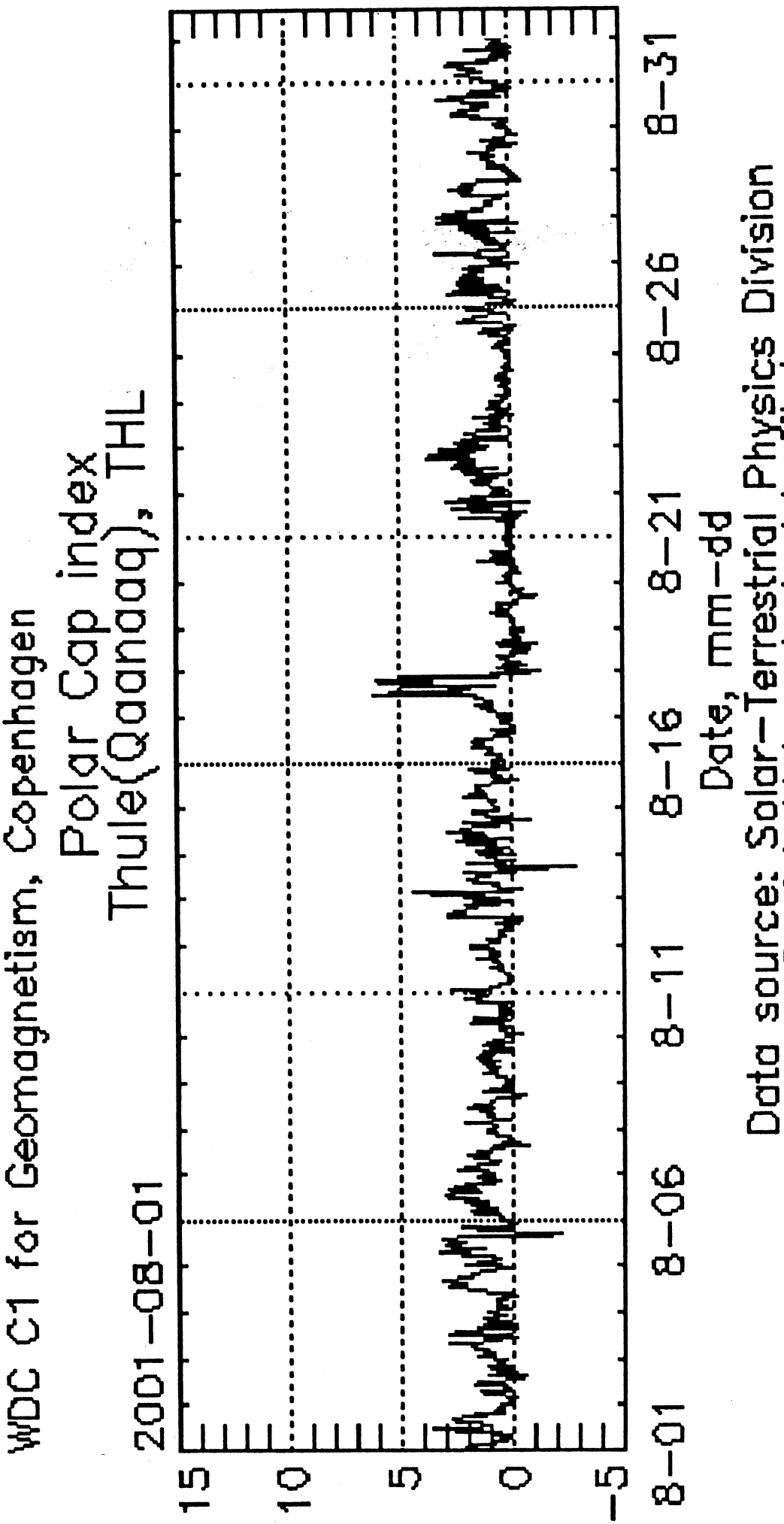
# HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

## AUGUST 2001

UNIT=NT

| DAY | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | U.T. 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | -19 | -16 | -14 | -19 | -24 | -23 | -18 | -16 | -16 | -18 | -20 | -19 | -7 | 0 | -4 | -6 | -6 | -2 | -3 | -5 | -6 | -6 | -8 | -7 |
| 2 | -7 | -3 | 0 | 3 | 4 | 3 | -3 | 0 | 1 | -1 | 2 | 0 | -1 | -1 | 2 | 7 | 9 | 10 | 12 | 11 | 9 | 8 | 10 | 11 |
| 3 | 7 | 8 | 9 | 5 | 2 | -2 | -10 | -3 | -17 | -11 | -7 | -3 | -5 | -6 | -9 | -10 | -7 | -5 | -5 | -7 | -10 | -14 | -12 | -9 |
| 4 | -7 | -7 | -7 | -6 | -7 | -10 | -8 | -2 | -1 | 0 | 1 | -2 | -5 | -5 | -5 | -5 | -6 | -9 | -16 | -19 | -20 | -19 | -16 | -12 |
| 5 | -10 | -9 | -5 | -1 | -1 | -2 | -9 | -18 | -20 | -14 | -12 | -13 | -16 | -31 | -49 | -49 | -32 | -28 | -32 | -35 | -34 | -34 | -24 | -18 |
| 6 | -18 | -12 | -14 | -11 | -5 | -7 | -6 | -9 | -9 | -23 | -22 | -28 | -27 | -30 | -32 | -31 | -28 | -34 | -36 | -35 | -32 | -31 | -25 | -24 |
| 7 | -25 | -21 | -15 | -11 | -12 | -15 | -13 | -16 | -16 | -15 | -9 | -10 | -13 | -14 | -10 | -7 | -4 | -5 | -5 | -5 | -3 | -4 | -5 | -10 |
| 8 | -15 | -15 | -10 | -8 | -5 | -5 | -9 | -15 | -17 | -17 | -11 | -8 | -8 | -6 | -3 | -1 | 2 | 4 | 4 | 3 | 0 | 0 | 1 | 2 |
| 9 | 2 | 5 | 8 | 8 | 3 | 2 | 5 | 6 | 3 | 1 | 2 | 3 | 1 | -2 | 0 | 0 | 0 | 4 | 0 | -2 | 0 | 1 | 13 | 17 |
| 10 | 17 | 16 | 18 | 23 | 23 | 13 | 7 | 3 | 4 | 2 | 4 | 6 | 6 | 5 | 7 | 7 | 9 | 8 | 5 | 2 | 4 | 0 | -4 | -7 |
| 11 | -8 | -5 | -2 | 0 | -1 | -1 | 2 | 2 | 2 | -1 | 0 | 2 | 3 | 2 | 2 | 1 | 2 | 6 | 4 | 5 | 5 | 5 | 4 | 2 |
| 12 | -1 | -3 | -4 | -6 | -4 | -2 | 1 | 2 | 5 | 9 | 12 | 26 | 40 | 35 | 38 | 37 | 27 | 7 | 6 | 13 | 11 | 8 | 8 | 12 |
| 13 | 17 | 10 | 5 | -8 | -29 | -22 | -17 | -21 | -25 | -21 | -20 | -14 | -12 | -9 | -5 | -6 | -3 | -2 | -7 | -5 | -2 | -3 | -5 | 1 |
| 14 | 4 | 3 | -2 | -7 | -7 | -9 | -8 | -8 | -6 | -6 | -8 | -19 | -22 | -23 | -22 | -23 | -26 | -21 | -18 | -13 | -13 | -14 | -16 | -12 |
| 15 | -9 | -10 | -11 | -11 | -13 | -14 | -16 | -12 | -9 | -9 | -9 | -9 | -9 | -9 | -7 | -6 | -7 | -7 | -5 | -4 | -6 | -6 | -4 | -2 |
| 16 | -1 | -2 | -3 | -5 | -5 | -2 | 0 | 3 | 2 | 0 | -2 | -4 | -4 | -2 | -1 | -1 | 0 | -2 | -1 | 0 | -1 | 1 | 4 | 5 |
| 17 | 4 | 6 | 9 | 9 | 7 | 4 | 2 | 0 | -1 | 0 | 3 | 41 | 39 | 21 | 11 | 7 | 2 | -13 | -40 | -62 | -89 | -103 | -65 | -71 |
| 18 | -72 | -69 | -61 | -63 | -64 | -65 | -50 | -61 | -61 | -59 | -54 | -49 | -43 | -42 | -33 | -27 | -26 | -22 | -22 | -23 | -28 | -25 | -34 | -36 |
| 19 | -36 | -33 | -31 | -27 | -25 | -21 | -16 | -11 | -24 | -15 | 1 | -2 | -1 | -5 | -8 | -7 | -11 | -12 | -9 | -7 | -11 | -15 | -16 | -17 |
| 20 | -17 | -14 | -10 | -9 | -10 | -8 | -8 | -7 | -8 | -11 | -11 | -2 | 1 | 8 | 6 | 4 | -2 | -2 | 1 | 4 | 11 | 10 | 8 | 8 |
| 21 | 13 | 15 | 16 | 15 | 14 | 8 | 8 | 9 | 7 | 4 | 2 | -5 | 4 | 14 | 19 | 15 | 12 | 11 | 3 | -7 | -12 | -11 | -4 | -1 |
| 22 | 1 | 2 | 2 | 3 | -5 | -7 | -11 | -10 | -6 | -7 | -17 | -24 | -19 | -18 | -15 | -20 | -24 | -24 | -17 | -26 | -30 | -25 | -25 | -21 |
| 23 | -24 | -24 | -21 | -20 | -14 | -11 | -18 | -22 | -16 | -14 | -11 | -11 | -9 | -8 | -8 | -10 | -10 | -9 | -11 | -13 | -13 | -9 | -8 | -6 |
| 24 | -5 | -2 | 0 | 1 | 2 | 3 | 1 | -1 | -2 | -2 | 2 | 4 | 3 | 3 | -1 | -2 | -2 | -1 | 0 | 0 | 0 | 2 | 2 | 3 |
| 25 | 1 | -1 | 1 | 3 | 9 | 8 | 5 | 9 | 12 | 16 | 18 | 11 | 0 | 8 | 14 | 19 | 20 | 15 | 5 | -1 | 2 | 6 | 6 | 2 |
| 26 | -4 | 4 | 4 | 8 | 8 | 5 | 4 | -5 | -23 | -16 | -11 | -12 | -6 | -4 | -5 | -5 | -5 | -7 | -11 | -10 | -11 | -16 | -9 | -4 |
| 27 | -3 | -5 | -4 | -8 | -12 | -12 | -11 | -6 | -5 | -5 | -5 | 0 | 4 | 3 | 1 | 4 | 9 | 3 | -1 | -2 | 15 | 15 | 15 | 7 |
| 28 | 0 | -16 | -13 | -11 | -12 | -15 | -19 | -13 | -15 | -14 | -10 | -10 | -12 | -11 | -12 | -12 | -12 | -7 | -2 | -4 | -2 | -1 | -3 | -4 |
| 29 | -6 | -10 | -11 | -13 | -11 | -10 | -10 | -11 | -7 | -5 | -7 | -8 | -7 | -5 | -3 | 2 | 3 | 0 | -3 | -5 | -6 | -7 | -7 | -7 |
| 30 | -5 | -7 | -6 | -2 | -3 | -9 | -12 | -16 | -21 | -28 | -26 | -21 | -16 | -10 | -3 | -7 | -5 | 0 | -2 | -11 | -17 | -14 | -10 | -9 |
| 31 | -13 | -10 | -11 | -10 | -15 | -19 | -22 | -28 | -36 | -45 | -44 | -33 | -23 | -18 | -17 | -22 | -20 | -12 | -21 | -21 | -21 | -22 | -23 | -25 |

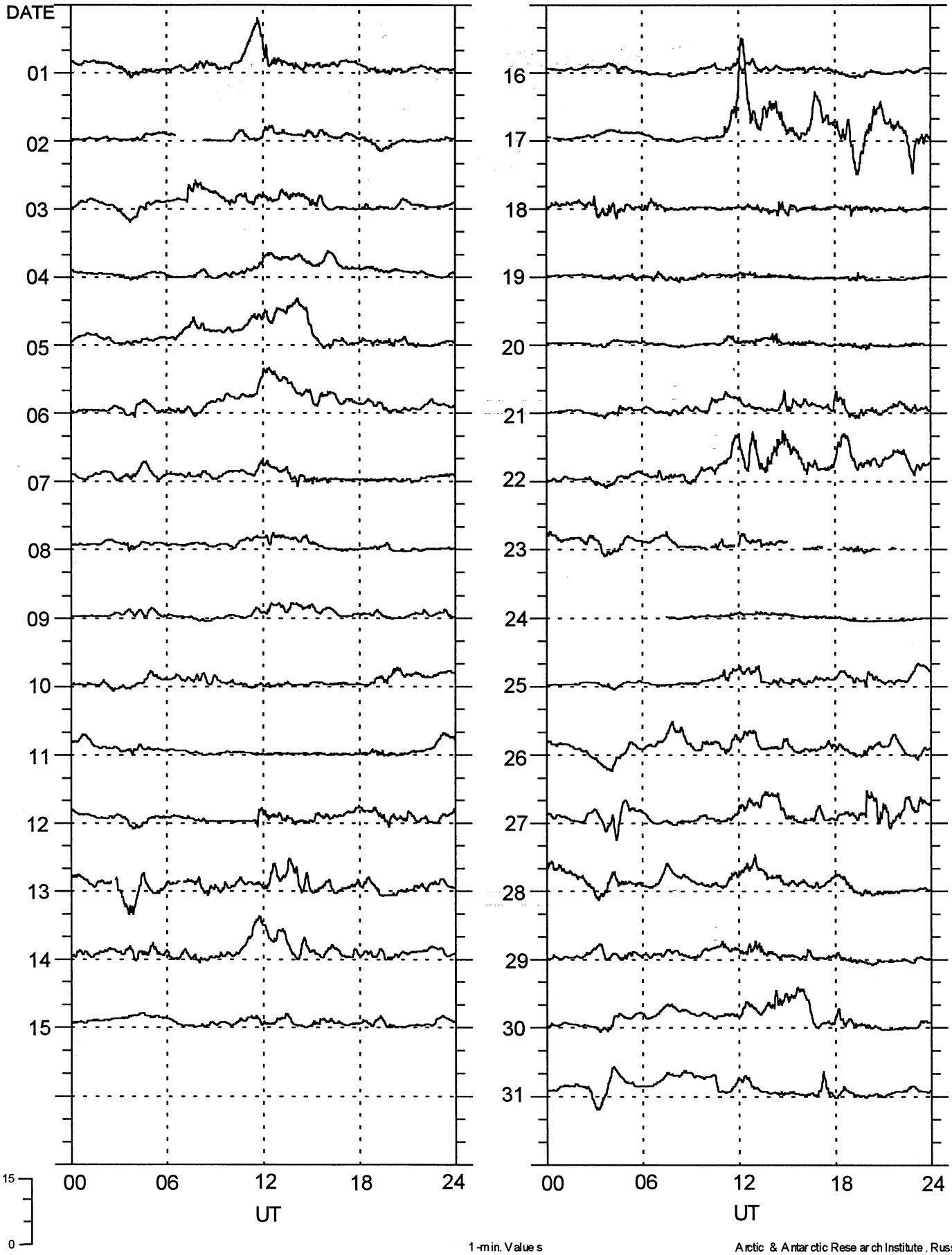



WDC C1 for Geomagnetism, Copenhagen
Polar Cap index
Thule(Qaanaaq), THL
2001-08-01
15
10
5
0
-5
8-01
8-06
8-11
8-16
8-21
8-26
8-31
Date, mm-dd
Data source: Solar-Terrestrial Physics Division
Danish Meteorological Institute

# PC-INDEX

## Vostok

August, 2001




1-min. Values

Arctic & Antarctic Research Institute. Russia

# PRINCIPAL MAGNETIC STORMS

## AUGUST 2001

| Sta | Geomag Lat | Commencement Day | Commencement Time (UT) | Type | SC Amplitudes D (Min) | SC Amplitudes H (Gamma) | SC Amplitudes Z (Gamma) | Maximum 3-Hour K Index Day(3-Hour Periods) | Ranges K | Ranges D (Min) | Ranges H (Gamma) | Ranges Z (Gamma) | End Day | End Hour (UT) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UJJ | 13.6N | 03 | 0700 | .. | .. | .. | .. | | - | 4 | 69 | 37 | 03 | 22 |
| NGP | 11.3N | 03 | 0700 | .. | .. | .. | .. | | - | 3 | 96 | 29 | 03 | 22 |
| ABG | 09.4N | 03 | 0700 | .. | .. | .. | .. | 03(3) | 5 | 4 | 80 | 55 | 03 | 22 |
| HYB | 07.6N | 03 | 0716 | SC | - 1.0 | 42 | - 5 | | - | -- | -- | -- | -- | -- |
| PND | 02.0N | 03 | 0700 | .. | .. | .. | .. | | - | 4 | 107 | 59 | 03 | 22 |
| TIR | 00.6S | 03 | 0700 | .. | .. | .. | .. | | - | 4 | 199 | 107 | 03 | 22 |
| ETT | 00.7S | 03 | 0716 | SC | - 0.6 | 81 | 52 | | - | -- | -- | -- | -- | -- |
| HER | 33.6S | 03 | 0718 | SC | 1 | 20 | 4 | 03(3) | 4 | 9 | 22 | 20 | 03 | 09 |
| KRC | 16.4N | 05 | 0217 | .. | .. | .. | .. | 05(5) | 6 | 9 | 114 | 51 | 06 | 01 |
| UJJ | 13.6N | 05 | 0500 | .. | .. | .. | .. | | - | 8 | 134 | 38 | 06 | 23 |
| NGP | 11.3N | 05 | 0500 | .. | .. | .. | .. | | - | 8 | 164 | 35 | 06 | 23 |
| ABG | 09.4N | 05 | 0500 | .. | .. | .. | .. | 05(5) | 6 | 8 | 164 | 53 | 06 | 23 |
| HYB | 07.6N | 05 | 0100 | .. | .. | .. | .. | 05(5,6) | 5 | 7 | 165 | 40 | 06 | 24 |
| PND | 02.0N | 05 | 0500 | .. | .. | .. | .. | | - | 7 | 174 | 44 | 06 | 23 |
| TIR | 00.6S | 05 | 0500 | .. | .. | .. | .. | | - | 6 | 229 | 74 | 06 | 23 |
| ETT | 00.7S | 05 | 0000 | .. | .. | .. | .. | | - | 6 | 226 | 68 | 07 | 11 |
| KRC | 16.4N | 06 | 0211 | .. | .. | .. | .. | 06(4) | 5 | 8 | 109 | 50 | 07 | 04 |
| KRC | 16.4N | 12 | 1058 | SC | - 3.0 | 52 | 33 | 12(4,6) | 5 | 9 | 115 | 69 | 13 | 08 |
| UJJ | 13.6N | 12 | 1133 | SC | - 0.4 | 40 | - 8 | | - | 8 | 86 | 37 | 13 | 19 |
| NGP | 11.3N | 12 | 1133 | SC | -- | 39 | - 5 | | - | 8 | 99 | 31 | 13 | 19 |
| ABG | 09.4N | 12 | 1133 | SC | - 0.5 | 49 | - 8 | 12(6) 13(1,2) | 4 | 7 | 89 | 48 | 13 | 19 |
| HYB | 07.6N | 12 | 1136 | SC | - 0.4 | 35 | - 1 | 12(4,6) 13(2) | 4 | 8 | 99 | 34 | 14 | 24 |
| PND | 02.0N | 12 | 1133 | SC | - 0.1 | 37 | 30 | | - | 7 | 87 | 60 | 13 | 19 |
| TIR | 00.6S | 12 | 1133 | SC | - 0.4 | 30 | 41 | | - | 6 | 127 | 86 | 13 | 19 |
| ETT | 00.7S | 12 | 1136 | SC | - 0.3 | 33 | 33 | | - | 7 | 127 | 72 | 14 | 12 |
| HER | 33.6S | 12 | 1136 | SC | 1 | 26 | 34 | 12(4,8) 13(1,2) | 4 | 17 | 71 | 71 | 13 | 15 |
| KRC | 16.4N | 17 | 1103 | SC | - 3.0 | 49 | 36 | 17(7,8) | 7 | 12 | 236 | 107 | 18 | 18 |
| UJJ | 13.6N | 17 | 1101 | SC | - 0.8 | 29 | - 7 | | - | 9 | 191 | 48 | 18 | 23 |
| NGP | 11.3N | 17 | 1101 | SC | - 0.3 | 27 | - 5 | | - | 8 | 223 | 28 | 18 | 23 |
| ABG | 09.4N | 17 | 1101 | SC | - 0.8 | 24 | - 9 | 17(5,7,8) | 6 | 8 | 215 | 62 | 18 | 23 |
| HYB | 07.6N | 17 | 1103 | SC | - 0.6 | 24 | - 2 | 17(7,8) | 6 | 8 | 207 | 26 | 18 | 23 |
| PND | 02.0N | 17 | 1101 | SC | - 0.5 | 29 | 33 | | - | 7 | 213 | 85 | 18 | 23 |
| TIR | 00.6S | 17 | 1101 | SC | - 0.8 | 29 | 35 | | - | 7 | 230 | 121 | 18 | 23 |
| ETT | 00.7S | 17 | 1103 | SC | - 0.4 | 30 | 27 | | - | 6 | 236 | 92 | 18 | 23 |
| HER | 33.6S | 17 | 1104 | SC | 1 | 23 | 26 | 17(7,8) | 6 | 27 | 208 | 186 | 18 | 08 |
| KRC | 16.4N | 19 | 0205 | .. | .. | .. | .. | 19(3) | 5 | 9 | 96 | 74 | 20 | 06 |
| HYB | 07.6N | 20 | 1000 | .. | .. | .. | .. | 22(4) | 5 | 10 | 103 | 22 | 23 | 08 |
| ETT | 00.7S | 20 | 1100 | .. | .. | .. | .. | | - | 7 | 173 | 47 | 23 | 13 |
| HER | 33.6S | 22 | 09-- | .. | .. | .. | .. | 22(8) | 5 | 17 | 84 | 60 | 23 | 08 |
| HYB | 07.6N | 25 | 0300 | .. | .. | .. | .. | 25(4,7) | 4 | 8 | 100 | 37 | 26 | 24 |
| ETT | 00.7S | 25 | 0200 | .. | .. | .. | .. | | - | 6 | 165 | 74 | 26 | 23 |
| UJJ | 13.6N | 27 | 1900 | .. | .. | .. | .. | | - | 9 | 59 | 45 | 28 | 18 |
| NGP | 11.3N | 27 | 1900 | .. | .. | .. | .. | | - | 9 | 83 | 34 | 28 | 18 |
| ABG | 09.4N | 27 | 1900 | .. | .. | .. | .. | 27(7) | - | 9 | 78 | 62 | 28 | 18 |
| HYB | 07.6N | 27 | 1952 | SC | - 0.6 | 35 | - 2 | | - | -- | -- | -- | -- | -- |
| PND | 02.0N | 27 | 1900 | .. | .. | .. | .. | | - | 8 | 86 | 75 | 28 | 18 |
| TIR | 00.6S | 27 | 1900 | .. | .. | .. | .. | | - | 8 | 153 | 65 | 28 | 18 |
| ETT | 00.7S | 27 | 1952 | SC | - 0.2 | 28 | 28 | | - | -- | -- | -- | -- | -- |
| HER | 33.6S | 27 | 1956 | SC | 2 | 25 | 20 | 27(7) 28(1) | 4 | 13 | 26 | 44 | 28 | 03 |
| HYB | 07.6N | 30 | 1411 | SC | - 0.1 | 6 | - 1 | | - | -- | -- | -- | -- | -- |
| ETT | 00.7S | 30 | 1411 | SC | - 0.1 | 7 | 6 | | - | -- | -- | -- | -- | -- |

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

## August 2001

| Storm Sudden Commencements (SSC) | | | Solar Flare Effects (sfe) | | |
|---|---|---|---|---|---|
| Day | Time | Quality: Station Group* | Day | Begin-End | Station(s) |
| 03 | 0716 | A: SOD* CLF* COI BJI* HYB | 02 | 1510-1520 | NGK+ |
| | | B: NUR* NGK* VAL* HRB EBR* SPT* HER* | 03 | 0305-0315 | MMB+KAK+HTY+KNY+ |
| | | C: BDV* GCK GNA CNB | 05 | 0338-0355 | MMB+ KAK+ KNY+ |
| 12 | 1135 | A: NGK* CLF* HRB NAG* EBR* COI BJI | 19 | 1847-1855 | NGK+ |
| | | SPT* HTY* GUI HYB | 25 | 1544-1551 | NGK |
| | | B: NUR* VAL* BDV* GCK* HER* | 29 | 0512-0535 | MMB+ KAK+ KNY+ |
| | | C: SOD* CNB | | | |
| 17 | 1103 | A: CLF* HRB NAG* MMB* COI BJI SPT* | | | |
| | | KAK* KNY* GUI | | | |
| | | B: SOD* NUR* NGK* VAL* BDV* GCK* EBR* | | | |
| | | HTY* HYB HER | | | |
| | | C: GNA CNB | | | |
| 27 | 1952 | A: NGK* VAL CLF* NAG* EBR COI BJI SPT* GUI HYB | | | |
| | | B: BDV* HRB HTY* HER | | | |
| | | C: SOD* GCK* GNA CNB | | | |
| 30 | 1411 | B: NGK* CLF COI | | | |
| | | C: BDV* SPT* HYB | | | |
| | | si: VAL | | | |

**REPORTING OBSERVATORIES** (up to the 4th of October 2001):
SOD NUR NGK VAL BDV CLF HRB NAG GCK MMB EBR COI BJI SPT KAK HTY KNY GUI HYB GNA HER CNB

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, but unmistakable; C means very poor, doubtful; and - means no quality figure given. The * means that the SSC, at least in one component, was preceded by a small reversed impulse. SSCs are given only when five or more stations report the event. SFEs include all reports. If an SFE is confirmed by solar or ionospheric events, the name of the station is identified with a plus sign (+).