

HFUS 3 BOU 130200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

7 DAY FORECAST OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 0200Z 13 AUGUST 1979

SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE DEPENDING SOLELY ON THE CONTINUED DEVELOPMENT OF REGION 1915 (N14E14). THE REGION IS COMPLEX MAGNETICALLY AS WELL AS IN WHITE LIGHT AND H-ALPHA, AND COULD PRODUCE A SIGNIFICANT FLARE AT ANY TIME.

THE GEOMAGNETIC FIELD IS EXPECTED TO BE MOSTLY UNSETTLED WITH SOME ACTIVE PERIODS ON 13 AUGUST OWING TO THE EFFECTS OF THE PASSAGE OF A SOLAR SECTOR BOUNDARY. A MAJOR FLARE FROM REGION 1915 COULD RESULT IN A MAGNETIC STORM BEGINNING 1 TO 2 DAYS AFTER THE FLARE EVENT.

SOLTERWARN

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HFUS 3 BOU 130201

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

27-DAY FORECAST OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 0201Z 13 AUGUST 1979

SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE UNTIL THE WEST LIMB TRANSIT OF REGION 1915 (N14E14) ON 20 AUGUST. THEREAFTER, ONLY LOW ACTIVITY IS EXPECTED UNTIL THE POTENTIAL RETURN OF REGION 1915 ON 02 SEPTEMBER. EXTRAORDINARY DEVELOPMENT IN NEW OR RETURNING REGIONS NOT NOW ON THE VISIBLE DISK WILL REVISE THIS FORECAST.

RECURRENCE SUGGESTS THAT THE GEOMAGNETIC FIELD WILL BE ACTIVE 24-25 AUGUST AND 29-30 AUGUST, QUIET 17-22 AUGUST AND 26-27 AUGUST, AND UNSETTLED DURING THE REMAINING PERIODS.

SOLTERWARN

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HFUS 1 BOU 132200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 225

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 13 AUGUST 1979

IA. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. AN M2 X-RAY BURST WAS THE MOST SIGNIFICANT EVENT. IT BEGAN AT 1016Z WITH A SLOW RISE TO ITS MAXIMUM AT 1116Z, AND THEN GRADUAL DECAY. THE SIGNATURE OF THIS FLARE IN X-RAY AND RADIO EMISSION APPEARED TO INDICATE A DISK FLARE AS OPPOSED TO A LIMB EVENT, BUT AT HENS, GREECE REPORTED ONLY A SMALL ACTIVE SURGE ON THE SOUTHEAST LIMB. MC MATH AND PALEHUA LATER REPORTED THE REMNENTS OF LOOPS AT SE20 TO 26 WHICH CONFIRMS LINKING THIS EVENT TO THE SOUTHEAST LIMB. RADIO BURSTS WERE OBSERVED THROUGH THE ENTIRE FREQUENCY RANGE WITH 4100 FLUX UNITS OBSERVED AT 2.695 MHZ. SHORT WAVE FADES TO 22 MHZ WERE ALSO OBSERVED. THIS REGION APPEARS TO BE OLD REGION 1887, AND HAS BEEN TENTATIVELY NUMBERED 1929. REGION 1915 (N15W00) HAS SHOWN SOME DECAY TODAY, BUT RETAINS ITS MAGNETIC COMPLEXITY WITH A STRONG NEGATIVE INTRUSION IN THE SOUTH CENTRAL PORTION OF THE REGION. TWO NEW REGIONS HAVE BEEN NUMBERED TODAY, 1927 (N17W14) AND 1928 (S05E60) BOTH SIMPLE A-TYPE GROUPS.

IB. SOLAR ACTIVITY WILL CONTINUE AT MODERATE LEVELS THROUGH THE FORECAST PERIOD. REGION 1915 REMAINS CAPABLE OF A SIGNIFICANT EVENT. NEW REGION 1929 (S24E84) COULD BE A LARGE COMPLEX REGION AND A SIGNIFICANT FLARE PRODUCER.

II. THE GEOMAGNETIC FIELD WAS UNSETTLED THROUGH MOST OF THE ZULU DAY YESTERDAY BECOMING ACTIVE DURING THE LAST TWO PERIODS. AT 0600Z TODAY A GRADUAL COMMENCEMENT TO MAJOR STORM LEVELS WAS OBSERVED WITH A K-VALUE OF 7 RECORDED AT BOULDER BETWEEN 12 AND 15Z. THE STORM APPEARS TO BE CORRELATED TO A COMBINATION OF A SECTOR BOUNDARY AND DISAPPEARING FILAMENT. THE FIELD SHOULD REMAIN ACTIVE TO MINOR STORM LEVEL THROUGH THE NEXT 18 HOURS, THEN BECOME ACTIVE THE REMAINING PERIOD.

III. EVENT PROBABILITIES 14 AUGUST - 16 AUGUST

CLASS M 50/60/70

CLASS X 05/10/15

PROTON 05/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 AUGUST 152

PREDICTED 14-16 AUGUST 156/162/168

90-DAY MEAN 13 AUGUST 167

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 12 AUGUST 20

ESTIMATED AFR/AP 13 AUGUST 46/46

PREDICTED AFR/AP 14-16 AUGUST 25/25 - 14/14 - 12/15

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