

HFUS 3 BOU 200200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO  
7 DAY FORECAST OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 0200Z 20 AUGUST 1979

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH. REGION 1943, JUST ROTATING OVER THE EAST LIMB (N05E 79 AT 2400 UT 19 AUGUST), IS THE SUSPECTED ORIGIN OF AN X6 FLARE ON 18 AUGUST. THIS REGION IS EXPECTED TO PRODUCE ADDITIONAL ENERGETIC EVENTS DURING ITS DISK PASSAGE. OTHER REGIONS PRESENTLY ON THE VISIBLE DISK ARE ALSO CAPABLE OF SIGNIFICANT FLARES.

THE GEOMAGNETIC FIELD IS EXPECTED TO EXPERIENCE ACTIVE TO MINOR STORM LEVEL FLUCTUATIONS THROUGHOUT THE WEEK IN RESPONSE TO SOLAR FLARE ACTIVITY.

SOLTERWARN

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HFUS 3 BOU 200201

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO  
27-DAY FORECAST OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 0200Z 20 AUGUST 1979

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH FOR THE NEXT TWO WEEKS BASED ON CONTINUING ENERGETIC FLARE ACTIVITY FROM REGIONS NOW ON THE VISIBLE DISK. ASSUMING THAT THE HELIOGRAPHIC LONGITUDES MAINTAIN THEIR PRESENT LEVELS OF STABILITY, DURING THE THIRD WEEK OF THE FORECAST PERIOD, ACTIVITY IS EXPECTED TO DECREASE TO LOW LEVELS, INCREASING AGAIN TO MODERATE LEVELS FOR THE FINAL WEEK.

THE GEOMAGNETIC FIELD IS EXPECTED TO BE ACTIVE TO MINOR STORM LEVELS FOR THE NEXT TWO WEEKS IN RESPONSE TO FLARE ACTIVITY AND A LARGE EQUATORIAL CORONAL HOLE. IN SEPTEMBER, RECURRENCE SUGGESTS ACTIVE CONDITIONS 08-10 SEPTEMBER, QUIET CONDITIONS 04-07 AND 12-14 SEPTEMBER, AND UNSETTLED CONDITIONS FOR THE REMAINING PERIODS.

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HFUS 1 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO  
SD F NUMBER 232

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 20 AUGUST 1979

IA. SOLAR ACTIVITY WAS HIGH DURING THE PAST 24 HOURS. SEVERAL FLARES HAVE OCCURRED DURING THE PAST 24 HOURS. THE MOST SIGNIFICANT EVENTS WERE FROM REGION 1943 (N04E70) WHICH PRODUCED A M1/SN AT 0509 UT, A C9/1B AT 0726 UT AND A X5/2B AT 0923 UT WHICH WAS ACCOMPANIED BY A TENFLARE OF 660 F.U., A STRONG SHORT WAVE FADE OF 44DB AND A TYPE II SWEEP. NEW REGION 1946 (S14E09) PRODUCED A C4/1B FLARE AT 1607 UT. THIS REGION HAS AN E-W NEUTRAL LINE AND APPEARS TO BE DEVELOPING RAPIDLY. THE PROTON EVENT WHICH STARTED ON THE 19TH OF AUGUST AT 0850Z CONTINUES IN PROGRESS. A POLAR CAP ABSORPTION EVENT STARTED ON 20 AUGUST AT 0015Z AND CONTINUES IN PROGRESS WITH 4.2DB ABSORPTION AT THIS TIME. NEW REGION 1947 (N23E07) IS A SIMPLE A-TYPE GROUP.

IB. SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH DURING THE NEXT 24 HOURS. REGION 1943 IS THE MOST LIKELY SOURCE OF ENERGETIC ACTIVITY. REGION 1946 MAY BECOME THE SOURCE OF M-CLASS X-RAY FLARES IF GROWTH CONTINUES AT THE PRESENT RATE. THE PROTON EVENT REACHED MAXIMUM AT 0803 UT ON THE 20TH OF AUGUST, WITH 450 PARTICLES GREATER THAN 10 MEV AND IS EXPECTED TO CONTINUE ABOVE EVENT LEVELS FOR THE NEXT 24 HOURS.

II. THE GEOMAGNETIC FIELD WAS UNSETTLED TILL 1700 UT WHEN ACTIVE TO MINOR STORM CONDITIONS DEVELOPED. THE FIELD IS EXPECTED TO BE ACTIVE WITH PERIODS OF MINOR STORM CONDITIONS DURING THE NEXT 18-24 HOURS. THEN ACTIVE TO UNSETTLED FOR THE REST OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 21 AUGUST - 23 AUGUST

CLASS M 9/0/9/0/0

CLASS X 40/60/50

PROTON 20/30/25

PCA IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 AUGUST 2.03

PREDICTED 21-23 AUGUST 2.02/2.01/2.00

90-DAY MEAN 20 AUGUST 1.68

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 19 AUGUST 4.0

ESTIMATED AFR/AP 20 AUGUST 27/30

PREDICTED AFR/AP 21-23 AUGUST 20/20 - 15/15 - 14/20

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