

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 (N05E79 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.

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HFUS 3 BOU 200201

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO  
27-DAY FORECAST OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 0201Z 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

SDF 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/IB 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/IB 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 90/90/90

CLASS X 40/60/50

PROTON 20/30/25

PCA IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 AUGUST 203

PREDICTED 21-23 AUGUST 202/201/200

90-DAY MEAN 20 AUGUST 168

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 19 AUGUST 40

ESTIMATED AFR/AP 20 AUGUST 27/30

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

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