

HFUS 1 BOU 121300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 255A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 12 SEPTEMBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
11/1200Z TO 12/1200Z:

SOLAR ACTIVITY HAS CONTINUED MODERATE. AN M2 X-RAY BURST WAS OBSERVED AT 11/2313UT AND WAS ACCOMPANIED BY A MODERATE RADIO BURST AT 4995 MHZ OF 480 F.U. ACTIVE SURGING FROM REGION 3310 (SW10) WAS OBSERVED AT THIS TIME. REGION 3317 (N09W27) HAS PRODUCED SEVERAL HIGH CLASS C FLARES WITH MOST PRODUCING MINOR CM BURSTS. OPTICALLY, THE FLARES TAKE THE FORM OF SEVERAL ERUPTIVE CENTERS SOMETIMES QUITE DISTANT. MAXIMUM MAGNETIC GRADIENTS ARE HIGH BUT ARE RESTRICTED TO SMALL ISLANDS SURROUNDING THE LEADER POLARITY. REGION 3329 (N19E56) HAS PRODUCED SEVERAL SUB-FLARES AND APPEARS TO BE GROWING. TWO NEW REGIONS ARE ROTATING OVER THE SOUTHEAST LIMB AT SE05 AND SE17. THE REGION AT SE05 APPEARS TO BE ACTIVE.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD CONTINUE AT A MODERATE LEVEL. 3317 IS STILL CAPABLE OF PRODUCING A MAJOR FLARE BUT MAGNETIC STRUCTURES AND RECENT FLARES SUGGEST IMPULSIVE LOW CLASS M FLARES SHOULD BE THE NORM FROM THIS REGION. REGIONS CURRENTLY AND EXPECTED AT THE EAST LIMB SHOULD HELP MAINTAIN MODERATE LEVELS FOR THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. ACTIVE CONDITIONS ARE EXPECTED TO CONTINUE FOR 13 AND 14 SEPTEMBER DUE TO A CORONAL HOLE HIGH SPEED WIND STREAM. UNSETTLED GEOMAGNETIC CONDITIONS ARE EXPECTED ON 15 SEPTEMBER.

III. EVENT PROBABILITIES: 13 SEPTEMBER - 15 SEPTEMBER

CLASS M 90/90/90

CLASS X 20/20/20

PROTON 20/20/20

CAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 11 SEPTEMBER 238

ESTIMATED 12 SEPTEMBER 228

PREDICTED 13-15 SEPTEMBER 223/225/235

90 DAY MEAN 11 SEPTEMBER 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR 10 SEP 08 AP 11 SEP 22

ESTIMATED AFR 11 SEP 20 AFR/AP 12 SEP 18/22

PREDICTED AFR/AP 13-15 SEP 25/18 20/15 13/15

SOLTERWARN

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