

HFUS 1 BOU 052200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 157

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 05 JUNE 1980

IA. SOLAR ACTIVITY HAS BEEN MOSTLY MODERATE, BUT BRIEFLY HIGH,  
DURING THE PAST 24 HOURS. REGION 2478 (S11W85) PRODUCED AN X2/1B  
FLARE AT 04/2301Z MAX. THIS EVENT WAS VERY IMPULSIVE AND THUS  
DID NOT PRODUCE A HIGH VALUE OF INTEGRATED FLUX. STRONG SWF'S  
WERE OBSERVED TO 15 MHZ, A 10 CENTIMETER RADIO FLUX BURST WAS  
OBSERVED PEAKING AT NEARLY 100 PERCENT ABOVE BACKGROUND AND A  
TYPE IV RADIO NOISE STORM WAS REPORTED FOLLOWING THE EVENT, BUT  
NO GREATER THAN 10 MEV PROTONS WERE DETECTED AND NO FLARE-INDUCED  
MAGNETIC STORM IS EXPECTED. OTHERWISE, DURING THE UT-DAY ON 05 JUNE  
REGION 2490 (S13E36) PRODUCED AN M1/SF FLARE AT 0046Z MAX AND A  
COUPLE OF C-CLASS SUBFLARES. REGION 2495 (N13W55) WHICH HAS GROWN  
RAPIDLY OVER THE PAST TWO DAYS HAS STARTED TO PRODUCE OCCASIONAL  
FAIRLY STRONG C-CLASS SUBFLARES. ALL THREE OF THESE REGIONS CONTAIN  
DELTA CONFIGURATIONS OF VARYING STRENGTHS.

IB. SOLAR ACTIVITY IS EXPECTED TO CONTINUE MODERATE TO HIGH. REGION  
2478 IS THE BEST CANDIDATE TO PRODUCE AN X-CLASS FLARE IN THE NEXT  
FEW DAYS, BUT MAY BE OUT OF SIGHT OVER THE WEST LIMB BEFORE THAT  
HAPPENS. AFTER BEING RATHER QUIET FOR THE PAST FEW DAYS, REGION  
2478 CHANGED ITS BEHAVIOR AFTER PRODUCING THE X2 FLARE AND IT CAN  
NOW BE EXPECTED TO PRODUCE SEVERAL C-CLASS BURSTS AND PERHAPS  
OCCASIONAL M-CLASS BURSTS DAILY. REGION 2490 HAS STRENGTHENED  
AND GROWN IN COMPLEXITY BUT IS FAIRLY DULL IN H-ALPHA. IT IS  
EVIDENTLY DESTINED TO PRODUCE OCCASIONAL M-CLASS BURSTS BUT MAY  
GRADUALLY ACQUIRE X-CLASS POTENTIAL. REGION 2495 WILL PROBABLY  
HAVE TO AWAIT NEXT ROTATION BEFORE IT PRODUCES FLARES WITH GEO-  
PHYSICAL CONSEQUENCES.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET FOR THE PAST 24 HOURS.  
THE FIELD IS EXPECTED TO REMAIN QUIET UNTIL 08 JUNE WHEN THE FIELD  
SHOULD BECOME UNSETTLED TO MILDLY ACTIVE.

III. EVENT PROBABILITIES 06 JUNE - 08 JUNE 1980

CLASS M 75/70/65

CLASS X 25/20/15

PROTON 20/15/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 05 JUNE 172

PREDICTED 06 - 08 JUNE 168/167/167

90-DAY MEAN 05 JUNE 202

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 04 JUNE 07

ESTIMATED AFR/AP 05 JUNE 05/07

PREDICTED AFR/AP 06 - 08 JUNE 07/10 07/10 12/15

SOLTERWARN

BT