

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 042301Z 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 GEOPHYSICAL 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 UNSETLED TO MILDLY ACTIVE.

III. EVENT PROBABILITIES 06 JUNE - 08 JUNE 1980

CLASS M 75/70/65

CLASS X 25/20/15

PREDICTED 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 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