

HOURS 1 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO.

SDF NUMBER 141

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 20 MAY 1980

IA. SOLAR ACTIVITY HAS BEEN MODERATE. A VERY LONG CLASS M1 X-RAY EVENT, WITH NO OPTICAL FLARE, WAS OBSERVED BEGINNING AT 1339 UT MAX 1445 UT AND END 1608 UT. THIS EVENT WAS ASSOCIATED WITH LOOP PROMINENCES AT S10 TO S21 EAST LIMB THAT APPEARED AFTER 1600 UT. THE LOOPS SEEM TO BE FROM A REGION WHICH IS STILL ONE DAY BEYOND THE EAST LIMB. REGION 2469 (S13E69) CONTAINS A LARGE E-TYPE SPOT GROUP AND HAS PRODUCED SEVERAL CLASS C/SUBFLARES. REGION 2470 (S21E69) ALSO PRODUCED SEVERAL CLASS C/SUBFLARES. ITS PLAGE IS COMPACT AND BRIGHT WITH A LARGE SPOT GROUP WHICH IS NOT COMPLETELY VISIBLE. REGION 2466 (S09E55) IS GROWING RAPIDLY IN SPOT AREA AND CONTAINS A WEAK DELTA CONFIGURATION. HOWEVER, IT HAS NOT PRODUCED ANY FLARE ACTIVITY TODAY. REGIONS 2452 (S08W44) AND 2456 (S13W05) ARE DEACYING SLOWLY AND HAVE NOT BEEN ACTIVE.

IB. SOLAR ACTIVITY IS EXPECTED TO INCREASE DURING THE NEXT 3 DAYS. REGIONS 2452, 2456, 2466, 2469 AND 2470 ALL APPEAR CAPABLE OF CLASS M ACTIVITY.

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETLED THE PAST 24 HOURS. THE GEOMAGNETIC FIELD IS EXPECTED TO BECOME HIGHLY UNSETLED TO ACTIVE LATE ON 22 MAY BECAUSE OF A CORONAL HOLE WHICH PASSED CENTRAL MERIDIAN ON 19 MAY.

III. EVENT PROBABILITIES 21 MAY - 23 MAY

CLASS M 90/90/90

CLASS X 05/05/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 MAY 244

PREDICTED 21-23 MAY 249/252/252

90-DAY MEAN 20 MAY 191

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 19 MAY 08

ESTIMATED AFR/AP 20 MAY 07/06

PREDICTED AFR/AP 21-23 MAY 07/08 - 14/12 - 18/15

SOLTERWARN

BT