

HFUS 3 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 140

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 20 MAY 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/2100 TO 20/2100Z: SOLAR ACTIVITY REMAINED LOW DURING THIS PERIOD. THE LARGEST EVENT OBSERVED WAS A C7/SN FROM REGION 4183 (N17E39) AT 0042UT THIS FLARE ALSO CAUSED A FILAMENT (N17E45) TO DISAPPEAR BETWEEN 0042UT AND 0111UT. THE FILAMENT WAS 5 DEGREES LONG. MINOR RADIO ALSO WAS RECORDED. REGION 4183 IS A BETA DELTA AND HAS SHOWN SIGNS OF BECOMING STABLE. REGION 4181 (S24E15) HAS ALSO DECAYED TODAY AND IS NOW A BETA MAGNETICALLY. NEW GROUPS TODAY ARE 4185 (S17E71) A SMALL "C" TYPE GROUP AND 4186 (S15E47) A SIMPLE "A" TYPE GROUP. REGION 4185 DID PRODUCE A C4/1F EVENT AT 1502UT THIS EVENT WAS ACCOMPANIED BY A BRIGHT SURGE ON THE LIMB OUT TO .22 RADII, HOWEVER LITTLE RADIO WAS OBSERVED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE AS REGIONS 4183, 4181 AND MAYBE REGION 4185 ARE CAPABLE OF PRODUCING "M" CLASS EVENTS. REGION 4183 APPEARS CAPABLE OF AN ISOLATED "X" CLASS EVENT.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 19/2100Z TO 20/2100Z: THE GEOMAGNETIC FIELD WAS GENERALLY QUIET TO UNSETTLED DURING THE PAST 24 HOURS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT ACTIVE, WITH PERIODS OF MINOR STORM CONDITIONS, DURING THIS FORECAST PERIOD. THIS ACTIVITY IS EXPECTED TO BE DUE TO A LARGE CORONAL HOLE WHICH PASSED CENTRAL MERIDIAN ON 18 MAY. THE FILAMENT WHICH DISAPPEARED TODAY IS NOT EXPECTED TO PRODUCE A LARGE INCREASE IN GEOMAGNETIC ACTIVITY THIS PERIOD.

III. EVENT PROBABILITIES 21 MAY-23 MAY

CLASS M 50/50/50

CLASS X 05/05/05

PROTON 01/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 MAY 149

PREDICTED 21 MAY-23 MAY 151/152/153

90 DAY MEAN 20 MAY 123

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 MAY 007/011

ESTIMATED AFR/AP 20 MAY 008/010

PREDICTED AFR/AP 21 MAY-23 MAY 015/020-025/030-020/025

SOLTERWARN

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