

FUS 3 BOU 182200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 138

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 18 MAY 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/2100 TO 18/2100Z: SOLAR ACTIVITY HAS BEEN LOW. REGION 4183 (N17E65) HAS PRODUCED ALMOST ALL OF THE CLASS C FLARE ACTIVITY DURING THE PAST 24 HOURS. THIS REGION IS NOW VISIBLE AS A CLASS C GROUP WITH VERY STRONG MAGNETIC GRADIENTS AND POSSIBLY A DELTA CONFIGURATION. ONE FILAMENT RELATED EVENT, A C3/SN AT 18/1845Z, PRODUCED A 190 F.U. BURST AT 2695 MHZ AND A 1200 F.U. BURST AT 245 MHZ. REGION 4183 EMERGED IN A PREVIOUSLY INACTIVE AREA AND IS THEREFORE ASSUMED TO BE IN A GROWTH STAGE. OTHER REGIONS HAVE SHOWN LITTLE CHANGE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BECOME MODERATE WITH 4183 PRODUCING FREQUENT SUBFLARES AND INFREQUENT LOW LEVEL CLASS M FLARES. LARGER FLARES ARE NOT EXPECTED FROM THIS REGION AT THIS TIME. PREVIOUSLY ACTIVE LONGITUDES ARE EXPECTED TO RETURN TO THE EAST LIMB DURING THE NEXT THREE DAYS BUT ARE NOT EXPECTED TO RETURN AS ACTIVE AS LAST ROTATION.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 17/2100Z TO 18/2100Z: THE FLARE RELATED DISTURBANCE WHICH BEGAN ON 17 MAY IS SUBSIDING. GENERALLY ACTIVE LEVELS HAVE BEEN OBSERVED AT ALL LATITUDES FOR THE PAST 24 HOURS. A SNOWSTORM RELATED POWER FAILURE HAS PREVENTED BOULDER MAGNETOMETER READINGS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT UNSETTLED TO ACTIVE LEVELS UNTIL LATE ON 21 MAY WHEN A CORONAL HOLE RELATED DISTURBANCE IS EXPECTED TO BEGIN. ACTIVE TO MINOR STORM CONDITIONS SHOULD THEN CONTINUE THROUGH 23 MAY.

III. EVENT PROBABILITIES 19 MAY-21 MAY

CLASS M 50/50/50

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 MAY 134

PREDICTED 19 MAY-21 MAY 136/140/145

90 DAY MEAN 18 MAY 122

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 17 MAY 048/048

ESTIMATED AFR/AP 18 MAY 014/015

PREDICTED AFR/AP 19 MAY-21 MAY 015/025-015/020-020/020

SOLTERWARN

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