

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

BT