

HFUS 3 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 141

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 20 MAY 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/2100 TO 20/2100Z: SOLAR ACTIVITY HAS BEEN HIGH THIS PERIOD. A X4/2B FLARE OCCURRED AT 2148 UT ON 19 MAY. THIS FLARE WAS ACCCOMPANIED BY LARGE RADIO BURSTS THROUGHOUT THE FREQUENCY SPECTRUM, INCLUDING 410 MHZ AND 245 MHZ BURSTS OF 110000 AND 52000 FLUX UNITS, RESPECTIVELY. REGION 4492 (S11E47) WAS THE SOURCE REGION FOR THIS ACTIVITY, AS WELL AS NUMEROUS M LEVEL X-RAY FLARES PRODUCED TODAY. THIS SPOT GROUP HAS CHANGED VERY LITTLE SINCE YESTERDAY, IT STILL MAINTAINS IT'S F TYPE SPOT CLASSIFICATION AND BETA GAMMA DELTA MAGNETIC CONFIGURATION. REGION 4494 (S12E66) HAS NOW ROTATED CLEARLY INTO VIEW AND APPEARS TO BE A D TYPE SPOT GROUP. NO NEW REGIONS WERE NUMBERED THIS PERIOD AND THE REMAINDER OF THE DISK IS UNIMPRESSIVE AT THIS TIME.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE MODERATE TO HIGH THROUGHOUT THE FORECAST PERIOD. REGIONS 4492 AND 4494 ARE THE LIKELY CANDIDATES FOR SIGNIFICANT FLARE ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 19/2100Z TO 20/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE TO STORM LEVELS, AT ALL LATITUDES, THIS PERIOD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD SHOULD BE AT ACTIVE TO STORM LEVELS, AT ALL LATITUDES, THROUGHOUT THE FORECAST PERIOD. THE EXPECTED ACTIVITY SHOULD BE DUE TO THE IMPACT OF CORONAL HOLE STREAMS, ALTHOUGH, EFFECTS FROM THE X4 FLARE OF 19 MAY ALSO MIGHT INFLUENCE THE FIELD BETWEEN 22 AND 23 MAY.

III. EVENT PROBABILITIES 21 MAY-23 MAY

CLASS M 90/90/90

CLASS X 40/40/40

PROTON 10/10/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 MAY 135

PREDICTED 21 MAY-23 MAY 138/141/147

90 DAY MEAN 20 MAY 131

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 MAY 023/032

ESTIMATED AFR/AP 20 MAY 024/030

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

SOLTERWARN

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