

HFUS 1 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 079

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 20 MARCH 1979

IA. SOLAR ACTIVITY WAS JUST MODERATE THIS PERIOD WITH AN OBSERVED M1 X-RAY FLARE WHICH OCCURRED AT 20/1234Z. THIS EVENT WAS ACCOMPANIED BY MINOR RADIO BURSTS AND SHORT WAVE FADES; HOWEVER, NO ASSOCIATED OPTICAL FLARE WAS OBSERVED. REGION 1638 (N06W01) HAS CONTINUED ITS GROWTH IN WHITE-LIGHT AND H-ALPHA AND HAS HAD BRIGHT POINTS WITH ENHANCED FLUCTUATING FLARE TO NEAR FLARE INTENSITY. REGIONS 1634 (S13W13) AND 1647 (S31E59) HAVE BEEN RELATIVELY ACTIVE AREAS WITH A STRONG ARCH FILAMENT SYSTEM AND BRIGHT POINTS REPORTED RESPECTIVELY. SEVERAL MINOR C-CLASS X-RAY AND SUBFLARES WERE OBSERVED DURING THE PERIOD.

IB. SOLAR ACTIVITY SHOULD REMAIN MODERATE DURING THE NEXT 24 HOURS. REGION 1638 IS STILL THE PREDOMINATE FEATURE BUT REGION 1647 SHOULD BE MONITORED FOR INCREASING ACTIVITY DUE TO CONTINUED GROWTH. OLD REGION 1591, WHICH PRODUCED 36 FLARES WITH ONE M-CLASS X-RAY FLARE IS DUE TO RETURN. THIS REGION WAS RELATIVELY ACTIVE AS IT CROSSED THE WEST LIMB PREVIOUSLY.

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED AND IS EXPECTED TO REMAIN UNSETTLED DURING THE NEXT PERIOD. THERE IS NO STRONG EVIDENCE SUPPORTING THE RETURN OF A CORONAL HOLE CONDUCTIVE TO GEOMAGNETIC ACTIVITY; HOWEVER, THE APPARENT EFFECTS OF A SOLAR SECTOR BOUNDARY PASSAGE WAS SEEN IN THE STANFORD SOLAR MEAN FIELD BETWEEN 17-18 MARCH.

III. EVENT PROBABILITIES 21-23 MAR

CLASS M 70/75/75

CLASS X 15/15/15

PROTON 15/15/15

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 MAR 186

PREDICTED 21-23 MAR 184/182/180

90-DAY MEAN 20 MAR 196

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 19 MAR 10

ESTIMATED AFR/AP 20 MAR 07/08

PREDICTED AFR/AP 21-23 MAR 10/12 - 12/14 - 08/10

SOLTERWARN

BT