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HFUS 3 BOU 162200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 075

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 16 MAR 1983

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 15/2100 TO 16/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. REGIONS 4115 (S13E27) AND 4116 (S06E51) HAVE EACH PRODUCED NUMEROUS SUBFLARES BUT NONE OF THEM WERE SIGNIFICANT IN X-RAYS. REGIONS 4115 AND 4116 HAVE BOTH DOUBLED IN WHITE LIGHT AREA AND SPOT COUNT SINCE YESTERDAY. REGION 4116 NOW APPEARS TO BE OF MAGNETIC BETA CLASS ALTHOUGH THE H-ALPHA INVERSION LINE IS SOMEWHAT UNUSUAL. REGION 4115 POSSESSES A STRONG MAGNETIC GRADIENT, AND BOTH REGIONS ARE SHOWING ARCH FILAMENT SYSTEMS, FLARE FLUCTUATIONS, AND BRIGHT POINTS. THE LIMB AND THE OTHER TWO SPOTTED REGIONS ON THE DISK ARE REPORTED STABLE.

B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW. HOWEVER, THE CHANCE FOR ISOLATED M-CLASS FLARES FROM REGIONS 4115 AND 4116 IS IMPROVING AS THEY CONTINUE TO DEVELOP.

II A. GEOPHYSICAL ACTIVITY SUMMARY FROM 15/2100Z TO 16/2100Z: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY UNSETTLED BUT WITH OCCASIONAL PERIODS AT ACTIVE LEVELS DURING THE PAST 24 HOURS.

II B. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE NEARLY QUIET TOMORROW, BECOMING UNSETTLED AND THEN ACTIVE BY THE END OF THE FORECAST PERIOD. ACTIVE CONDITIONS ARE FORECAST AS A RESPONSE TO A RECURRENT, NEGATIVE-POLARITY EQUATORIAL CORONAL HOLE NEAR SOLAR CENTRAL MERIDIAN TODAY.

III. EVENT PROBABILITIES 17 MAR - 19 MAR

CLASS M 25/30/30

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 16 MAR 109

PREDICTED 17 MAR - 19 MAR 112/115/118

90 DAY MEAN 16 MAR 137

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 15 MAR 015/016

ESTIMATED AFR/AP 16 MAR 012/015

PREDICTED AFR/AP 17 MAR - 19 MAR 010/015-015/020-025 /025

SOLTERWARN

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