

HFUS 3 BOU 172200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 076

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 17 MAR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 16/2100Z TO 17/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE OVER THE PAST 24 HOURS. THE MAJORITY OF ACTIVITY HAS ORIGINATED FROM REGION 4116, (S06E37). SIGNIFICANT FLARES FROM THIS REGION INCLUDED THE FOLLOWING EVENTS: M1/SB AT 0227Z; M2/1B AT 0905Z; AND M5/1B AT 2013Z. ALTHOUGH THE SUNSPOT AREA OF REGION 4116 IS LITTLE CHANGED FROM YESTERDAY, ITS MAGNETIC COMPLEXITY AND 10.7CM MICROWAVE EMISSIONS HAVE INCREASED. OTHER REGIONS ON THE SOLAR DISK REMAIN UNCHANGED AND QUIET.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO INCREASE OVER THE NEXT THREE DAYS. AS REGION 4116 GROWS IN COMPLEXITY OVER THE NEAR TERM, THE PROBABILITY OF M-CLASS XRAY FLARES WILL REMAIN RELATIVELY HIGH. HOWEVER, CONSIDERING THE OVERALL SIZE OF REGION 4116, THE LIKELIHOOD OF A NEAR EARTH ENHANCEMENT OF ENERGETIC CHARGED PARTICLES FROM THIS REGION IS RATHER REMOTE.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 16/2100Z TO 17/2100Z: THE GEOMAGNETIC FIELD DURING THE PAST 24 HOURS HAS BEEN GENERALLY UNSETTLED.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO INCREASE OVER THE NEXT THREE DAYS AS THE HIGH SPEED SOLAR WIND STREAMS FROM A LARGE CORONAL HOLE REGION SWEEPS PAST THE EARTH. THE MAXIMUM EFFECTS OF THE CORONAL HOLE SHOULD BE FELT ON THE SECOND DAY OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 18 MAR-20 MAR

CLASS M 80/80/80

CLASS X 01/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 17 MAR 116

PREDICTED 18 MAR-20 MAR 120/125/130

90 DAY MEAN 17 MAR 137

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 16 MAR 013/014

ESTIMATED AFR/AP 17 MAR 010/015

PREDICTED AFR/AP 18 MAR-20 MAR 015/020-025/025-025/020

SOLTERWARN

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