

HFUS3 BOU 212200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 080

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 21 MAR 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 20/2100 TO 21/2100Z: SOLAR ACTIVITY HAS BEEN VERY LOW FOR THE PAST 24 HOURS. A NEW REGION EMERGED TODAY AND WAS NUMBERED REGION 4637 (N05E80). THIS REGION PRODUCED A BRILLIANT INTENSITY OPTICAL SUBFLARE AT 21/1511UT WITH AN ASSOCIATED X-RAY CLASS C7. DURING THE EVENT MAXIMUM THE FLARE FROM THIS REGION EXTENDED TO ONE-ONEHUNDRETH OF A SOLAR RADIUS. BECAUSE OF THE PROXIMITY TO THE LIMB OF REGION 4637, NO SPOTS ARE CURRENTLY OBSERVED.

REGION 4636 (S15E55) PRODUCED A NORMAL INTENSITY OPTICAL SUBFLARE AT 21/1351UT. REGION 4633 (S11W18) HAS HAD AN ACTIVE FILAMENT WHICH RUNS THROUGH THE REGIONS CENTER N-S, PORTIONS OF THIS FILAMENT HAVE DISAPPEARED. A FOUR DEGREE LONG FILAMENT DISAPPEARED AT S18W21.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN VERY LOW. DUE TO THE ACTIVITY ALREADY EXHIBITED BY REGION 4637, AN INCREASE IN THE PROBABILITY OF M-LEVEL ACTIVITY EXISTS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 20/2100Z TO 21/2100Z: THE GEOMAGNETIC FIELD WAS GENERALLY QUIET TO UNSETTLED FOR THE PAST 24 HOURS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED ON THE 22ND OF MARCH. UNSETTLED TO ACTIVE CONDITIONS ARE EXPECTED TO BE PREDOMINATE ON THE 23RD AND 24TH OF MARCH. THIS ACTIVITY IS BASED ON RECURRENT PATTERNS.

III. EVENT PROBABILITIES 22 MAR-24 MAR

CLASS M 02/02/02

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 21 MAR 077

PREDICTED 22 MAR-24 MAR 077/077/077

90 DAY MEAN 21 MAR 073

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 20 MAR 004/008

ESTIMATED AFR/AP 21 MAR 008/008

PREDICTED AFR/AP 22 MAR-24 MAR 010/010-015/015-015/015

SOLTERWARN

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