

HFUS 3 BOU 152200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 074

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 15 MAR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/2100Z TO 15/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. THE LARGEST EVENT WAS A C3/SN FLARE FROM REGION 4116 (S07E65) MAXING AT 1909Z. REGION 4116 IS NOW AN E-TYPE GROUP OF MODERATE MAGNETIC COMPLEXITY (BETA-GAMMA CLASS). REGIONS 4116 AND 4115 (S13E39) HAVE SHOWN CONSIDERABLE GROWTH. ARCH. FILAMENT SYSTEMS ARE PRESENT IN BOTH REGIONS AS WELL AS IN NEW REGION 4117 (N19W13) WHICH HAS EMERGED RAPIDLY IN AN AREA OF BRIGHT PLAGE. NEW REGION 4118 (S12E75) IS AN H-TYPE SPOT LEADING THE LOCATION OF RETURNING REGIONS 4091 AND 4095. A FILAMENT OF 6 DEGREES IN EXTENT CENTERED AT S17E60 DISAPPEARED AT APPROXIMATELY 0400Z. THE DISAPPEARANCE WAS ACCOMPANIED BY A C1/SF FLARE (MAXIMUM 0417Z AND DURATION 33 MINUTES) COMPOSED OF THREE CENTERS: ONE ON EITHER SIDE OF THE DSF AND ONE TO THE NORTH.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW. HOWEVER, CONTINUED DEVELOPMENT IN REGIONS 4116 AND 4115 COULD LEAD TO M-CLASS ACTIVITY WITHIN THE NEXT FEW DAYS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 14/2100Z TO 15/2100Z: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO SLIGHTLY ACTIVE FOR THE PAST 24 HOURS, CONTINUING A SLOW DECLINE FROM THE MINOR STORM CONDITIONS EXPERIENCED ON 12 MARCH.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO CONTINUE GENERALLY UNSETTLED FOR THE NEXT 3 DAYS WITH MINOR SUBSTORM ACTIVITY POSSIBLE DURING LOCAL NIGHTTIME HOURS. MARCH 17 IS EXPECTED TO BE NEAR-QUIET. A SLIGHT INCREASE OF ACTIVITY ON 18 MARCH IS FORECAST IN RESPONSE TO THE PASSAGE OF A SOLAR SECTOR BOUNDARY.

III. EVENT PROBABILITIES 16 MAR-18 MAR

CLASS M 15/25/30

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 MAR 103

PREDICTED 16 MAR-18 MAR 105/110/112

90 DAY MEAN 15 MAR 139

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 MAR 022/026

ESTIMATED AFR/AP 15 MAR 014/020

PREDICTED AFR/AP 16 MAR-18 MAR 015/015-010/015-015/020

SOLTERWARN

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