

HFUS 3 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 098

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 07 APR 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 06/2100 TO 07/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOUR PERIOD. REGION 4455 (S15W76) PRODUCED A M2/08 EVENT AT 07/0250Z WITH 280SFU ON THE 245MHZ FREQUENCY. IT ALSO PRODUCED OTHER LOWER C-LEVEL X-RAY AND SUB-FLARES THROUGHOUT THE PERIOD. IT DEVELOPED AN ACTIVE SURGE REGION, REMAINED A BETA-GAMMA-DELTA MAGNETIC CONFIGURATION, AND ITS AREA INCREASED SLIGHTLY OVER YESTERDAY. AN ACTIVE PROMINENCE REGION DEVELOPED ON TOP OF THE SURGE REGION AND EXTENDED TO .13 RADII BEFORE COLLAPSING. REGION 4460 (S09W31) PRODUCED A FEW SUB-FLARES WITH ONE LOW C-LEVEL X-RAY EVENT. IT HAD BOTH ARCHED FILAMENT SYSTEMS AND ACTIVE DARK FILAMENTS. REGION 4458 (N18W61) ALSO PRODUCED SOME SUB-FLARES BUT OTHERWISE NO SIGNIFICANT ACTIVITY. NO NEW REGIONS WERE NUMBERED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE AT A LOW LEVEL OF ACTIVITY THROUGHOUT THE FORECAST PERIOD. REGION 4455 PROVIDES A GOOD CHANCE OF MODERATE LEVEL ACTIVITY UNTIL IT ROTATES AROUND THE WEST LIMB ON THE SECOND DAY (9 APR). REGIONS 4458 AND 4460 CONTINUE TO PROVIDE C-LEVEL X-RAY ACTIVITY THEREAFTER. NO SIGNIFICANT RETURNING REGIONS ARE EXPECTED.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 06/2100Z TO 07/2100Z: GEOMAGNETIC ACTIVITY HAS BEEN AT ACTIVE LEVELS DURING THE PAST 24 HOUR PERIOD. STORM LEVELS WERE REPORTED AT HIGH LATITUDES AFTER 07/0900Z. A DISAPPEARING FILAMENT AT S08W09 OF 4 DEGREES LENGTH ON 06/0730Z; AND ANOTHER AT N20W25 OF 6 DEGREES LENGTH ON 05/1400Z ARE CONSTRUED AS THE CAUSE OF THE CURRENT DISTURBANCE.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE AT ACTIVE LEVEL THROUGHOUT THE FORECAST PERIOD. THE DISAPPEARING FILAMENTS MENTIONED ARE DESIGNATED AS THE PRODUCERS OF THE ACTIVITY. STORM LEVELS ARE EXPECTED AT HIGH LATITUDES THROUGHOUT THE PERIOD.

III. EVENT PROBABILITIES 08 APR-10 APR

CLASS M 50/40/30

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 APR 108

PREDICTED 08 APR-10 APR 108/108/111

90 DAY MEAN 07 APR 129

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 06 APR 012/020

ESTIMATED AFR/AP 07 APR 020/025

PREDICTED AFR/AP 08 APR-10 APR 016/020-017/020-015/020

SOLTERWARN

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