

HFUSS BOU 262200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 116

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 26 APR 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 25/2100 TO 26/2100Z: SOLAR ACTIVITY HAS BEEN VERY LOW. THE LARGEST EVENT WAS AN OPTICALLY UNCORRELATED C2 XRAY EVENT WITH MAXIMUM AT 25/2228. ALL OPTICALLY CORRELATED EVENTS CAME FROM REGION 4647 (N05W11). THIS REGION CONTINUES TO BE A LARGE AND COMPLEX EKI WITH A WHITE LIGHT AREA OF 720 MILLIONTHS OF THE DISK. THIS REPRESENTS A SLOW STEADY DECLINE OVER THE LAST TWO DAYS. MAGNETICALLY IT IS NOW A BETA-GAMMA-DELTA REGION WITH A MAGNETIC GRADIENT OF .24 GAUSS/KM. THE ONLY OTHER SPOTTED REGION WAS REGION 4648 (S01W91) WHICH WAS SEEN AS AN AXX GROUP EARLY IN THE DAY. NO NEW REGIONS WERE NUMBERED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW, BUT THERE IS STILL A SIGNIFICANT CHANCE FOR MODERATE TO VERY HIGH ACTIVITY. REGION 4647 APPEARS TO BE IN A SLOW STEADY DECAY, AND NOW HAS A WEAKENED MAGNETIC GRADIENT. ITS COMPLEXITY, HOWEVER, STILL INDICATES THAT IT IS LIKELY TO PRODUCE ANOTHER LARGE FLARE BEFORE IT ROTATES OFF OF THE DISK.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 25/2100Z TO 26/2100Z: THE GEOMAGNETIC FIELD BEGAN THE PERIOD AT ACTIVE LEVELS, INCREASED TO STORM LEVELS (MAJOR STORM AT HIGH LATITUDES) NEAR 26/0000Z, AND RETURNED TO ACTIVE LEVELS ABOUT 1200Z. THE GEOSYNCHRONOUS PROTON EVENT CONTINUED WITH A MAXIMUM OF OVER 100 PARTICLES/CME/SEC/STER AT GREATER THAN 10 MEV AT APPROXIMATELY 26/0500Z (EXACT COUNT AND TIME CURRENTLY UNAVAILABLE AT SESC). THIS EVENT ENDED AT APPROXIMATELY 26/2030Z. A POLAR CAP ABSORPTION EVENT ALSO OCCURRED. IT BEGAN AT 26/0200Z, MAXED AT 3.8 DB AT 26/0500Z, AND ENDED AT 26/1830Z.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT MINOR STORM LEVELS ON THE 27TH, AND RETURN TO ACTIVE LEVELS ON THE 29TH AND 30TH. THIS ACTIVITY IS EXPECTED IN RESPONSE TO THE X1/3B FLARE ON THE 24TH AT 0535Z.

III. EVENT PROBABILITIES 27 APR-29 APR

CLASS M 25/25/25

CLASS X 15/15/15

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 26 APR 089

PREDICTED 27 APR-29 APR 087/085/085

90 DAY MEAN 25 APR 073

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 25 APR 022/024

ESTIMATED AFR/AP 26 APR 035/040

PREDICTED AFR/AP 27 APR-29 APR 030/030-020/025-018/020

SOLTERWARN

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