

HFUS 3 BOU 012200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 122

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 01 MAY 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/2100 TO 01/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE THIS PERIOD DUE TO A M4/2B EVENT FROM REGION 4474 (S13W48) AT 0018UT THIS EVENT PRODUCED A TENFLARE OF 200 FLUX UNITS AT 2695MHZ NO TYPE II/IV SWEEPS WERE REPORTED WITH THE EVENT. REGION 4474 CONTINUES TO DECAY IN SIZE AND INTERNAL MAGNETIC COMPLEXITY. REGION 4474 DOES CONTAIN TWO DELTAS BOTH IN THE TRAILER PORTION OF THE REGION. REGION 4476 (S12W20) ALSO HAS EXHIBITED SOME DECAY IN SIZE DURING THE PAST 12 HOURS. NEW REGION TODAY 4477 (S15W10) IS A SIMPLE H TYPE HOWEVER THERE IS SOME ARCH FILAMENTS BEING OBSERVED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE DURING THIS FORECAST PERIOD. WITH A SLOW DOWN TREND IN NUMBERS OF M CLASS EVENTS DUE TO THE CONTINUED DECAY OF REGIONS 4474 AND 4476.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 30/2100Z TO 01/2100Z: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST 24 HOURS. THE PROTON EVENT WHICH BEGAN AT 1330UT ON 25 APRIL REACHED A MAXIMUM OF 2500 PARTICLES AT GREATER THAN 10MEV CM<sup>2</sup>/SEC/STER AT 1420UT ON 26 APRIL THIS EVENT CONTINUES IN PROGRESS WITH 12 PARTICLES AT GREATER THAN 10MEV/CM<sup>2</sup>/SEC/STER RECORDED AT 2000UT ON 01 MAY. THE POLAR CAP ABSORPTION EVENT BEGAN AT 1845UT 25 APRIL REACHING A MAXIMUM OF 16DB ON 26 APRIL AT 1430UT AND ENDING AT 1845UT ON 29 APRIL. THIS POLAR CAP ABSORPTION EVENT IS BASED ON CALCULATIONS USING THE GREATER THAN 10 MEV PROTONS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT ACTIVE LEVELS FOR THE NEXT 24 HOURS WITH THE REST OF THE FORECAST PERIOD AT GENERALLY UNSETTLED LEVELS.

THE PROTON EVENT SHOULD END DURING THE NEXT 12 HOURS.

III. EVENT PROBABILITIES 02 MAY-04 MAY

CLASS M 70/60/50

CLASS X 05/05/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 MAY 150

PREDICTED 02 MAY-04 MAY 140/120/105

90 DAY MEAN 01 MAY 130

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 APR 011/017

ESTIMATED AFR/AP 01 MAY 018/025

PREDICTED AFR/AP 02 MAY-04 MAY 015/020-010/015-010/015

SOLTERWARN

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