

HFUS 1 BOU 042200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 095

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 4 APRIL 1980

IA. SOLAR ACTIVITY HAS BEEN MODERATE TO HIGH. REGION 2363 (N27W42) PRODUCED INTERMITTENT SUBFLARE ACTIVITY THROUGHOUT THE FIRST HALF OF THE DAY AND THEN AT 1456 U.T., A LONG LIVED M5/2B BEGAN. THIS FLARE HAD SHORTWAVE FADES TO 22 MHZ, 10CM BURSTS OF 670 FLUX UNITS, TYPE II/TYPE IV SWEEP FREQUENCY EMISSION AND UP TO 20 PERCENT UMBRAL COVERAGE. THE GRADIENTS ARE MORE RELAXED THAN YESTERDAY BUT INSTABILITY IN THIS REGION IS EVIDENT BY ACTIVE DARK FILAMENTS AND ARCH/FILAMENT SYSTEMS. INSPITE OF THE MORE RELAXED GRADIENTS, THERE ARE POSSIBLY TWO DELTA MAGNETIC CONFIGURATIONS PRESENT. A NEW REGION, 2372 (N13E30), IS DEVELOPING RAPIDLY. A LARGE LEADER SPOT AND NUMEROUS SMALL TRAILER SPOTS ARE BISECTED BY A VERY PRONOUNCED ARCH FILAMENT SYSTEM. BRIGHT POINTS AND PLAGE FLUCTUATIONS CHARACTERIZE THIS REGIONS SMALL COMPACT PLAGE. REGION 2370 (N22E48) HAS SHOWN GROWTH SINCE YESTERDAY, DEVELOPED A DELTA MAGNETIC CONFIGURATION BUT HAS ONLY PRODUCED A COUPLE OF SMALL SUBFAINT FLARES. NOT MUCH CHANGE ELSEWHERE.

IB. SOLAR ACTIVITY WILL BE MODERATE TO HIGH AS REGION 2363 SHOULD REMAIN CAPABLE OF ENERGETIC ACTIVITY AND THE BEHAVIOR OF 2372 SUGGEST THAT ENERGETIC ACTIVITY FROM THIS REGION IS BECOMING MORE LIKELY.

II. THE M5/2B IS EXPECTED TO PRODUCE A PROTON EVENT WITH THE MAXIMUM NEAR 50 PARTICLES/SQ CM/SEC/STER OCCURRING ON 5 APRIL AT 0100 UT. THE GEOMAGNETIC FIELD HAS BEEN GENERALLY UNSETLED WITH BRIEF PERIODS OF ACTIVE CONDITIONS. GENERALLY ACTIVE CONDITIONS ARE EXPECTED ON 5 APRIL WITH THE FLARE EFFECTS REACHING THE EARTH ON 6 APRIL RESULTING IN ACTIVE TO MINOR STORM CONDITIONS.

III. EVENT PROBABILITIES 5 APRIL - 7 APRIL

CLASS M 75/75/75

CLASS X 10/10/10

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 4 APRIL 192

PREDICTED 5-7 APRIL 180/180/180

90-DAY MEAN 4 APRIL 191

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 3 APRIL 08

ESTIMATED AFR/AP 4 APRIL 11/12

PREDICTED AFR/AP 5-7 APRIL 15/15 17/22 30/35

SOLTERWARN

BT