

FUS 3 BOU 232200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 113

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 23 APR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 22/2100 TO 23/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS WITH LOW LEVEL CLASS C EVENTS BEING OBSERVED. REGION 4150 (S12E18) HAS PRODUCED SEVERAL OF THOSE EVENTS AND IS REPORTED TO BE SLOWLY GROWING. THIS IS A PREDOMINANTLY REVERSE POLARITY REGION AND TRAILER POLARITY SPOTS ARE EMERGING JUST AHEAD OF THE LEADER IN AN ATTEMPT TO FORM A DELTA CONFIGURATION. A NEW REGION WAS IDENTIFIED JUST SE OF 4154 (S13E57) AND WAS NUMBERED 4156 (S15E66). WHILE NEITHER REGION ALONE APPEARS TO BE SIGNIFICANT IN WHITE LIGHT, THE MAGNETIC STRUCTURE OF THE COMBINED AREA IS COMPLEX. BRIGHT SURGING HAS BEEN OBSERVED AT SEO4.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE GENERALLY LOW FOR THE NEXT 3 DAYS. ISOLATED CLASS M FLARES FROM REGION 4150 AND THE 4154/4156 COMPLEX ARE POSSIBLE. A CLASS M EVENT FROM THE 4154/4156 AREA WOULD MOST LIKELY BE A LARGE AREA, LONG DURATION EVENT WITH TYPE II/IV RADIO BURSTS. NO SIGNIFICANT ACTIVE REGIONS ARE EXPECTED TO RETURN DURING THE FORECAST PERIOD.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 22/2100Z TO 23/2100Z: THE GEOMAGNETIC FIELD WAS UNSETTLED LATE ON 22 APR, BECAME ACTIVE FROM 23/0000-0900Z, AND THEN RETURNED TO UNSETTLED LEVELS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD SHOULD BECOME PREDOMINANTLY ACTIVE ON 24 APR AND REMAIN SO FOR THE SUBSEQUENT TWO DAYS. LOCAL NIGHTTIME SECTORS SHOULD EXPERIENCE MINOR STORM CONDITIONS. THIS IS IN RESPONSE TO A HIGH SPEED SOLAR WIND STREAM FROM A TRANSEQUATORIAL CORONAL HOLE WHOSE LEADING EDGE IS NOW TWO DAYS PAST CENTRAL MERIDIAN.

III. EVENT PROBABILITIES 24 APR-26 APR

CLASS M 30/30/40

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 23 APR 139

PREDICTED 24 APR-26 APR 144/144/140

90 DAY MEAN 23 APR 120

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 22 APR 015/025

ESTIMATED AFR/AP 23 APR 015/015

PREDICTED AFR/AP 24 APR-26 APR 016/025-025/025-020/025

SOLTERWARN

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