

HFUS 1 B0U 022200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 122

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 02 MAY 1979

IA. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. THE MOST SIGNIFICANT EVENT WAS AN M9/2B FLARE FROM REGION 1705 (N19W59) WHICH BEGAN AT 1651Z. THIS FLARE FOLLOWED A SUBFAINT FLARE IN REGION 1707 (S24W39) WHICH BEGAN AT 1649Z INDICATING A POSSIBLE CORONAL CONNECTION BETWEEN THE TWO REGIONS. THE M9/2B FLARE MAXED AT 1659Z AND ENDED AT 1759Z. TYPE II/IV RADIO SWEEPS WERE OBSERVED ALONG WITH MAJOR SHORT WAVE FADES TO 22MHZ. THE PEAK 10 CENTIMETER OBSERVED WAS 440 FLUX UNITS. FLARE OBSERVATIONS AT MAXIMUM INDICATED PARALLEL RIBBONS AND 20 PERCENT UMBRAL COVERAGE. THE REGION HAS DECAYED SIGNIFICANTLY SINCE YESTERDAY IN BOTH AREA AND EXTENT, BUT MAINTAINS ITS MAGNETIC COMPLEXITY AS A DELTA. REGION 1711 (N16W05) IS THE OTHER SIGNIFICANT REGION ON THE DISK, BUT HAS BEEN SURPRISINGLY QUIET WITH ONLY C-CLASS SUBFLARES REPORTED. REGIONS 1707 (S24W39) AND 1717 (S24E52) HAVE ALSO SHOWN SOME MINOR ACTIVITY. NEW REGION 1722 (N20E60) HAS APPEARED OVER THE EAST LIMB AS A B-TYPE GROUP.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE THROUGH THE FORECAST PERIOD, WITH AN ISOLATED X-CLASS EVENT POSSIBLE FROM REGION 1711 OR 1705. RETURNING ACTIVE REGIONS 1681 AND 1684 COULD CONTRIBUTE TO THE OVERALL LEVEL OF ACTIVITY.

II. THE GEOMAGNETIC FIELD HAS BEEN AT HIGH UNSETTLED LEVELS DURING THE PAST 24 HOURS. UNSETTLED CONDITIONS ARE EXPECTED THROUGH THE NEXT 38 HOURS WITH THE FLARE INDUCED MINOR STORM EXPECTED TO ARRIVE NEAR MID ZULU DAY ON THE 4TH OF MAY. A PROTON ENHANCEMENT AT SATELLITE LEVELS IS EXPECTED TO BEGIN APPROXIMATELY (03/0000Z) *(next 2 days)* ENHANCED FLUX IS EXPECTED IN THE 5 TO 10 MEV RANGE.

III. EVENT PROBABILITIES 03 MAY - 05 MAY

CLASS M	90/90/90
CLASS X	50/50/50
PROTON	60/40/30
PCAF	RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED	02 MAY 178 (ESTIMATED)
PREDICTED	03-05 MAY 180/181/178
90 DAY MEAN	02 MAY 190

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG	01 MAY 14
ESTIMATED AFR/AP	02 MAY 14/16
PREDICTED AFR/AP	03-05 MAY 12/16 - 20/20 - 30/30

SOLTERWAR N

BT