

HFUS 3 BOU 042200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 125

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 04 MAY 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/2100 TO 04/2100Z: SOLAR ACTIVITY WAS MODERATE. AN M1 X-RAY EVENT AT 4/1617Z WAS OPTICALLY CORRELATED TO REGION 4474 (S14W84) WITH LOOPS SIGHTED AFTER THE EVENT BUT IN PROPER TIME SEQUENCE. GODDARD'S SMM DATA CONFIRMED THAT THE EVENT WAS FROM REGION 4474. IT WAS A BETA-GAMMA MAGNETIC CONFIGURATION WITH ITS AREA, LONGITUDINAL EXTENT, AND SPOT NUMBER ALL DECREASING IN WHITE LIGHT - PROBABLY DUE TO FORESHORTENING MORE THAN ANYTHING ELSE. REGION 4476 (S12W60) ALSO DECREASED IN THE SAME PARAMETERS BUT WAS A BETA-TYPE MAGNETICALLY. TWO NEW REGIONS WERE ASSIGNED: REGION 4478 (S21E40) AND REGION 4479 (S11E44) WERE SIMPLE BETA-TYPES WITH TWO SPOTS EACH.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW. REGION 4474 STILL PROVIDES THE FAIR CHANCE OF MODERATE LEVELS AND A VERY SLIGHT CHANCE OF HIGH LEVELS. RETURNING REGION 4471 (N04, CAR-153) IS EXPECTED AT 5/2000Z AND ALREADY ENHANCED THE OTTAWA 10 CM EAST-WEST SCAN ON THE EAST LIMB. THIS REGION PRODUCED FOUR M-LEVEL X-RAY AND FOUR IMPORTANCE ONE OPTICAL EVENTS DURING ITS LAST ROTATION. IT SHOULD KEEP THE PROBABILITIES UP TO THE CURRENT LEVEL THROUGHOUT THE PERIOD AS REGION 4474 CROSSES THE WEST LIMB.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 03/2100Z TO 04/2100Z: GEOMAGNETIC ACTIVITY WAS UNSETLED TO ACTIVE. BRIEF MINOR STORM LEVELS WERE REPORTED AT HIGH LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE ACTIVE THE FIRST AND SECOND DAYS (5-6 MAY), WITH STORM LEVELS AT HIGH LATITUDES. BRIEF MINOR STORM LEVELS ARE EXPECTED AT MID-LATITUDES THROUGH 6/1800Z. UNSETLED TO ACTIVE LEVELS ARE THEN EXPECTED FOR THE THIRD DAY (7 MAY). THIS TWO-DAY DISTURBANCE IS EXPECTED DUE TO RECURRING ACTIVE CARRINGTON LONGITUDES.

III. EVENT PROBABILITIES 05 MAY-07 MAY

CLASS M 50/50/50

CLASS X 05/05/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 MAY 118

PREDICTED 05 MAY-07 MAY 115/114/115

90 DAY MEAN 04 MAY 130

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 MAY 011/013

ESTIMATED AFR/AP 04 MAY 016/015

PREDICTED AFR/AP 05 MAY-07 MAY 020/025-016/025-009/015

SOLTERWARN

BT