

HFUS3 BOU 022200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 122

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 02 MAY 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 01/2100 TO 02/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE PAST 24 HOURS. REGION 4647(N05W92), A DAO TYPE SPOT GROUP WITH A BETA MAGNETIC CLASSIFICATION, HAS NEARLY EXITED THE DISK. IT PRODUCED A B5.3/ON EVENT AT 0506UT AND AN M4.9/1B EVENT AT 0745UT. THE LARGER EVENT WAS ACCCOMPANIED BY TYPE II AND TYPE IV RADIO SWEEPS. A BRIGHT SURGE ON THE LIMB AT THAT LOCATION DISRUPTED AN ACTIVE PROMINENCE, WHICH HAS SINCE REFORMED IN LAYERS. PLAGE REGION 4649(N04E50) WAS NUMBERED TODAY WHEN IT SUSTAINED A B5.6/0F FLARE AT 0713Z. THIS FLARE INITIATED A SYMPATHETIC BRIGHTENING OF PLAGE IN REGION 4650(N04E71), WHICH APPEARED AS AN AXX TYPE SPOT GROUP, AND WAS ALSO NUMBERED TODAY. REGION 4650 HAS EXHIBITED ACTIVE SURGING AND A 0F FLARE AT 1859UT. REGION 4651(N10E32), ANOTHER AXX TYPE SPOT GROUP, WAS NUMBERED TODAY. ACTIVE PROMINENCES WERE OBSERVED AT N19W90 AND N39E90.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW FOR THE NEXT 24 HOURS AND VERY LOW FOR THE SUBSEQUENT 48 HOURS. REGION 4647 IS EXPECTED TO PRODUCE LIMB ACTIVITY.

REGIONS 4649, 4650, AND 4651 ARE NOT EXPECTED TO PRODUCE ANY SIGNIFICANT ACTIVITY. NO REGIONS ARE DUE TO RETURN FOR THE NEXT THREE DAYS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 01/2100Z TO 02/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE TO MAJOR STORM LEVELS FOR THE PAST 24 HOURS. THE DISTURBANCE BEGAN BY 0300UT AT ALL LATITUDES AND HAD GENERALLY SUBSIDED BY 1200UT. THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE LEVELS SINCE. THE SOURCE OF THE ACTIVITY IS UNKNOWN AT THIS TIME.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE ACTIVE FOR THE NEXT 72 HOURS. MINOR STORMING IS EXPECTED AT HIGH LATITUDES ON 05 MAY DUE TO THE PASSAGE OF A CORONAL HOLE PAST THE CENTRAL MERIDIAN ON 01 MAY. THIS CORONAL HOLE IS AN EQUATORIAL EXTENSION OF THE NORTH POLAR CROWN WITH A NEGATIVE POLARITY. THE POSSIBILITY OF A PROTON EVENT EXISTS WHILE REGION 4647 IS STILL NEAR THE WEST LIMB.

III. EVENT PROBABILITIES 03 MAY-05 MAY

CLASS M 30/10/01

CLASS X 10/05/01

PROTON 05/05/01

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 MAY 075

PREDICTED 03 MAY-05 MAY 073/072/072

90 DAY MEAN 02 MAY 074

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 01 MAY 013/012

ESTIMATED AFR/AP 02 MAY 030/054

PREDICTED AFR/AP 03 MAY-05 MAY 015/020-015/025-025/035

SOLTERWARN

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