

HFUS 3 BOU 042200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 155

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 04 JUN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/2100 TO 04/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 4201 (S09E03) CONTINUES TO DOMINATE THE DISK IN BOTH APPEARANCE AND ACTIVITY. IT HAS PRODUCED TWO M-CLASS XRAY EVENTS DURING THE PERIOD ALONG WITH MANY C-CLASS FLARES. THE FIRST EVENT WAS OBSERVED AT 0228Z MAXIMUM, AN M1/IB WITH MINOR DISCRETE FREQUENCY RADIO BURSTS ASSOCIATED WITH IT. THE SECOND EVENT AT 1957Z WAS ALMOST IDENTICAL TO THE FIRST, AN M1/IB WITH MINOR RADIO RESPONSE. REGION 4201 HAS GROWN SIGNIFICANTLY OVER NIGHT (NOW HAS AN AREA OF 870 MILLIONTHS), AND DISPLAYS A STRONGER MAGNETIC GRADIENT. ARCH FILAMENTS ARE VISIBLE IN THE REGION'S CENTRAL PORTION ALONG WITH SEVERAL ACTIVE NEUTRAL LINE FILAMENTS. THE MAGNETIC DELTA CONFIGURATIONS WITHIN THE REGION'S LARGE CENTRAL PENUMBRA HAVE REMAINED INTACT AND APPEAR STRONGER TODAY. NEW REGION 4204 (S08E81) HAS ROTATED OVER THE EAST LIMB AS A LARGE D-TYPE GROUP, AND ALTHOUGH QUIET TODAY, APPEARS TO POSSESS THE POTENTIAL FOR ACTIVITY. THE REMAINING DISK REGIONS HAVE SHOWN LITTLE CHANGE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN MODERATE WITH M-CLASS ACTIVITY LIKELY FROM REGION 4201 AND TO A LESSER EXTENT 4204. THE POTENTIAL FOR X-CLASS FLARES FROM REGION 4201 IS INCREASING.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 03/2100Z TO 04/2100Z: THE GEOMAGNETIC FIELD HAS BEEN QUIET TO SLIGHTLY UNSETLED DURING THE PERIOD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE FIELD IS EXPECTED TO REMAIN AT UNSETLED LEVELS UNTIL THE END OF THE DAY ON THE 6TH, WHEN ACTIVE LEVELS ARE FORECAST DUE TO THE FIELD'S RESPONSE TO A CORONAL HOLE.

III. EVENT PROBABILITIES 05 JUN-07 JUN

CLASS M 80/80/80

CLASS X 10/15/15

PROTON 01/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 JUN 145

PREDICTED 05 JUN-07 JUN 150/153/155

90 DAY MEAN 04 JUN 124

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 JUN 007/009

ESTIMATED AFR/AP 04 JUN 006/015

PREDICTED AFR/AP 05 JUN-07 JUN 010/015-008/015-020/020

SOLTERWARN

BT