

HFUS 3 BCU 052230

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 156

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 05 JUN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 04/2100 TO 05/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE WITH AN INCREASING OCCURRENCE OF M-CLASS XRAY EVENTS DURING THE PAST FEW HOURS. REGION 4201 (S09W10) HAS PRODUCED ALL THREE OF THE M-CLASS FLARES TODAY. THE FIRST, AN M1/SB OCCURRED AT 1551Z MAXIMUM WITH MINOR RADIO RESPONSE. THE SECOND EVENT WAS AT 1756Z (AN M1/1B), AND THE THIRD WAS AT 1944Z (AN M1/SB). FLARES FROM REGION 4201 HAVE BEEN NEARLY CONTINUOUS SINCE 1200Z WITH THE XRAY BACKGROUND DISPLAYING A GRADUAL INCREASE DURING THIS SAME PERIOD. THIS REGION'S SPOT AREA HAS INCREASED BY ONE-HALF DURING THE PAST 24 HOURS WHILE ITS MAGNETIC FIELD STRENGTHS AND GRADIENTS HAVE DOUBLED. STRONG OPPOSITE POLARITY INTRUSIONS ARE EVIDENT IN BOTH THE NORTHERN AND SOUTHERN PORTIONS OF THE LARGE TRAILER PENUMBRA. REGION 4204 (S09E68) HAS BEGUN TO PRODUCE MINOR SUBFLARE ACTIVITY AS IT NOW BECOMES TOTALLY VISIBLE ON THE DISK. THIS SPOT GROUP IS A D-TYPE WITH A LARGE LEADER PENUMBRA AND MINOR MAGNETIC COMPLEXITY. NO NEW GROUPS WERE NUMBERED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE MODERATE WITH AN X-CLASS FLARE VERY LIKELY DURING THE FORECAST PERIOD FROM REGION 4201. THE REGION IS ALSO MOVING INTO THE PRIME LOCATION FOR A SATELLITE PROTON EVENT SHOULD A LARGE FLARE OCCUR.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 04/2100Z TO 05/2100Z: THE GEOMAGNETIC FIELD WAS QUIET FOR THE FIRST HALF OF THE PERIOD BUT BECAME UNSETTLED TOWARDS THE END OF THE PERIOD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE FIELD SHOULD INCREASE GRADUALLY THROUGH ACTIVE LEVELS FOR THE NEXT THREE DAYS. A CORONAL HOLE INDUCED DISTURBANCE IS FORECAST ON THE 7TH AND IS EXPECTED TO LAST FOR 48 HOURS.

III. EVENT PROBABILITIES 06 JUN-08 JUN

CLASS M 95/95/95

CLASS X 30/30/30

PROTON 15/20/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 05 JUN 167

PREDICTED 06 JUN-08 JUN 170/172/175

90 DAY MEAN 05 JUN 125

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 04 JUN 003/007

ESTIMATED AFR/AP 05 JUN 010/015

PREDICTED AFR/AP 06 JUN-08 JUN 015/015-020/020-025/025

SOLTERWARN

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