

FUS 3 BOU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 181

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 30 JUN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/2100 TO 30/2100Z: SOLAR ACTIVITY INCREASED TO THE MODERATE LEVEL AT THE END OF THE UT DAY YESTERDAY WITH THE OCCURRENCE OF AN M2 AT 2246Z MAXIMUM. FLARE LOOPS OBSERVED ON THE NORTHWEST LIMB (N15W90) WERE ASSOCIATED WITH THIS XRAY BURST AND ARE ASSUMED TO HAVE BEEN PRODUCED BY REGION 4214 (N13 W99 AT 30/00Z). THIS REGION WAS A SIMPLE H-TYPE SPOT GROUP PRIOR TO WEST LIMB ROTATION. SHORTLY AFTER THE M2 EVENT REGION 4227 (S08E14) PRODUCED AN M1/SN FLARE AT 2349Z MAXIMUM. THIS REGION HAS REMAINED STABLE DURING THE 24 HOUR PERIOD WITH LITTLE GROWTH OR DECAY NOTED. ITS MAGNETIC COMPLEXITY REMAINS BETA-GAMMA DELTA WITH THE STRONGEST MAGNETIC GRADIENT LOCATED IN THE LARGE TRAILER PENUMBRA. SLIGHT PENUMBRAL DECAY HAS BEEN OBSERVED AT THIS LOCATION. REGIONS 4222 (N11W67) AND 4230 (S18E30) HAVE ALSO PRODUCED MINOR ACTIVITY, BUT HAVE SHOWN LITTLE SIGNIFICANT CHANGE. NEW REGION 4232 (N26W08) WAS NUMBERED TODAY AND IS A SIMPLE B-TYPE SPOT GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE GENERALLY LOW DURING THE PERIOD WITH AN ISOLATED M-CLASS EVENT POSSIBLE FROM REGION 4227.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 29/2100Z TO 30/2100Z: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED DURING THE PERIOD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE FIELD IS EXPECTED TO BECOME SLIGHTLY ACTIVE DURING THE NEXT 12 HOUR PERIOD IN RESPONSE TO A WEAK/SMALL CORONAL HOLE NOW ROTATING INTO A FAVORABLE SUN-EARTH CONNECTION LONGITUDE. THIS ACTIVITY SHOULD BE SHORT-LIVED WITH UNSETTLED CONDITIONS EXPECTED BY THE 2ND OF JULY.

III. EVENT PROBABILITIES 01 JUL-03 JUL

CLASS M 30/30/30

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 JUN 123

PREDICTED 01 JUL-03 JUL 122/120/118

90 DAY MEAN 30 JUN 132

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 JUN 015/013

ESTIMATED AFR/AP 30 JUN 008/011

PREDICTED AFR/AP 01 JUL-03 JUL 015/010-010/010-010/010

SOLTERWARN

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