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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 211A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 30 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/1200Z TO 30/1200Z: SOLAR ACTIVITY HAS CONTINUED VERY LOW FOR THE PAST 24 HOURS. THE LARGEST XRAY EVENT WAS C2 AT 0345Z AND THIS WAS THE LARGEST EVENT IN TWO DAYS! ONLY THREE SPOTTED REGIONS ARE REPORTED ON THE VISIBLE SOLAR DISK. REGION 3829(S11E56) HAS SHOWN MINOR GROWTH BUT REMAINS A SMALL REGION PRODUCING ONLY A COUPLE OF SUBFLARES. REGION 3828(N06E06) HAS BEEN STABLE AND INACTIVE. REGION 3830 (N16E75) ROTATED INTO VIEW TODAY AS A SMALL SPOT WITH ASSOCIATED ACTIVE PROMINENCE. A SUBFLARE IN AN UNSPOTTED REGION HAS DEFINED REGION 3831(N13W06). WEATHER HAS INTERFERED WITH DETAILED ANALYSIS OF SOLAR STRUCTURE AND EVOLUTION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO RISE SLOWLY DURING THE NEXT TWO DAYS AS SMALL REGIONS GROW AND/OR APPEAR AT EAST LIMB. ACTIVITY IS EXPECTED TO RISE DRAMATICALLY ON THE THIRD DAY AS ACTIVITY BEGINS TO APPEAR ABOVE THE EAST LIMB WITH THE BEGINNING OF EAST LIMB TRANSIT OF GREAT REGION 3804. THIS REGION PRODUCED 67 CLASS M AND 5 CLASS X FLARES LAST ROTATION AND WAS REGENERATING STRONG SUNSPOTS JUST PRIOR TO ITS WEST LIMB TRANSIT. THE PRESENCE OF OPEN MAGNETIC FIELD STRUCTURE WEST OF THIS REGION MAY PERMIT PROPAGATION OF FLARE EFFECTS TO EARTH FROM EAST LIMB.

II. GEOPHYSICAL SUMMARY AND FORECAST: GEOMAGNETIC ACTIVITY REDUCED TO UNSETTLED AT THE BEGINNING OF THE PAST 24 HOURS AND REMAINED SO UNTIL 0600Z. A STRONG SUBSTORM BROUGHT ACTIVITY TO MINOR STORM LEVEL FOR THE NEXT 3 HOURS. CONDITIONS ARE CURRENTLY ACTIVE BUT DIMINISHING. UNSETTLED CONDITIONS ARE EXPECTED FOR THE NEXT 12 HOURS AND FOR TOMORROW. QUIET CONDITIONS ON 01 AUGUST ARE EXPECTED TO BE REPLACED BY UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS ON 02 AUGUST.

III. EVENT PROBABILITIES 31 JUL-02 AUG

CLASS M 10/15/50
CLASS X 01/01/10
PROTON 01/01/10
PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED	29 JUL	095
ESTIMATED	30 JUL	102
PREDICTED	31 JUL-02 AUG	110/118/132
90 DAY MEAN	29 JUL	161

V. GEOMAGNETIC A INDICES

OBSERVED AFR	28 JUL	020	AP 29 JUL	027
ESTIMATED AFR	29 JUL	017	AFR/AP 30 JUL	018/022
PREDICTED AFR/AP	31 JUL-02 AUG	010/010-006/010-016/015		

SOLTERWARN

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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 211B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 30 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z TO 30/2100Z: SOLAR ACTIVITY HAS CONTINUED VERY LOW BUT THE NUMBER OF SUBFLARES HAS INCREASED. REGION 3829 (S10E51) IS GROWING QUITE RAPIDLY AND IS NOW A MODERATE SIZE CLASS D GROUP WITH BRIGHT PLAGE AND ARCH FILAMENTS. ALL OF THE SUBFLARE ACTIVITY THIS PERIOD HAS OCCURRED IN 3829. REGION 3830 (N16E70) HAS SHOWN SLOW GROWTH BUT LITTLE ACTIVITY. A SMALL REGION IS EMERGING AT S12E09 AND HAS BEEN NUMBERED 3832.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE LOW FOR THE NEXT TWO DAYS UNLESS 3829 CONTINUES ITS RAPID GROWTH. SHOULD RAPID GROWTH CONTINUE, AN ISOLATED CLASS M FLARE COULD RESULT WITHIN 24 HOURS. PREVIOUSLY POWERFUL REGION 3804 IS DUE AT THE EAST LIMB TOWARD THE END OF THE PERIOD. ACTIVITY LEVELS SHOULD INCREASE AT THAT TIME.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD REMAINS ACTIVE. THE CORONAL HOLE RELATED SOLAR WIND STREAM ENDED AS EXPECTED BUT WAS REPLACED BY A STREAM OF MODERATELY HIGH SPEED/DENSITY NEAR 30/1600Z. THE ONLY POSSIBLE SOURCE FOR THIS DISTURBANCE IS A LARGE FILAMENT PREVIOUSLY LOCATED IN THE SOUTHWEST QUADRANT ON 28 JULY. THIS FILAMENT WAS OBSERVED ONLY TODAY AS HAVING FADED DUE TO LACK OF OPTICAL IMAGERY SINCE 28 JULY. THE CURRENT DISTURBANCE IS EXPECTED TO CONTINUE THROUGH 31 JULY WITH UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS FORECAST FOR 01-02 AUG.

III. EVENT PROBABILITIES 31 JUL-02 AUG

CLASS M 10/15/50

CLASS X 01/01/10

PROTON 01/01/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 JUL 109

PREDICTED 31 JUL-02 AUG 120/130/145

90 DAY MEAN 30 JUL 161

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 JUL 019/025

ESTIMATED AFR/AP 30 JUL 023/024

PREDICTED AFR/AP 31 JUL-02 AUG 015/015-012/015-015/015

SOLTERWARN

BT

HXUS BOU 302200

PREDM 01031 01501 05002

PREDX 00131 00101 01002

PREDP 00131 00101 01002

PCAF 00131

TENCM 12031 13001 14502

AFRED 01531 01201 01502

AFAPP 01531 01501 01502

BT