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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

BT

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

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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

AFAPF 01531 01501 01502

BT