

HFUS 1 BOU 281300  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 301A  
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1300Z 28 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 27/1200Z TO 28/1200Z: SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS. THE LARGEST EVENT OF THE PERIOD WAS A C7/SN FLARE FROM REGION 3960 (N12W13) AT 27/1635Z MAXIMUM. THIS REGION HAS STABILIZED AS A MODERATE-SIZED D-TYPE SPOT GROUP WITH WEAKENING MAGNETIC FIELDS. THE MOST IMPRESSIVE REGION ON THE DISK IS NOW 3961 (S07W05), A RAPIDLY GROWING E-TYPE GROUP WHICH HAS DOUBLED ITS SPOT AREA DURING THE PAST 36 HOURS. THIS REGION HAS ARCH FILAMENTS REPORTED AND AN ACTIVE DARK FILAMENT, BUT HAS ONLY MANAGED SMALL C-CLASS SUBFLARES DURING THE PERIOD. REGION 3955 (S12W45) IS THE THIRD MOST DOMINANT GROUP ON THE DISK, BUT SLOW DECAY IN THIS GROUP CONTINUES WITH ONLY MINOR ACTIVITY OBSERVED. THE REMAINING DISK REGIONS HAVE BEEN QUIET AND LITTLE CHANGED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. REGION 3961 HAS NOW BECOME THE PRIME CANDIDATE FOR M-CLASS ACTIVITY, BUT THUS FAR HAS NOT SHOWN A CAPABILITY FOR THIS SIZE OF FLARE PRODUCTION. IF ITS GROWTH CONTINUES AND ITS MAGNETIC COMPLEXITY INCREASES PROPORTIONALLY, MODERATE EVENTS SHOULD OCCUR. ONLY VERY ISOLATED M-EVENTS ARE NOW EXPECTED FROM REGIONS 3955 AND 3960.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN SLIGHTLY ACTIVE DURING THE PERIOD. THE LATEST K<sub>1</sub> VALUES HAVE INDICATED A TREND TOWARDS UNSETTLED LEVELS. HIGH ACTIVE LEVELS ARE EXPECTED BY LATE IN THE UT DAY TODAY AND INCREASE TO NEAR MINOR STORM CONDITIONS BY THE 30TH OF OCTOBER. IN RESPONSE TO FILAMENT DISAPPEARANCES AND THE M3 FLARE ON THE 27TH, A GRADUAL SETTLING OF THE FIELD SHOULD BE OBSERVED ON THE LAST DAY OF THE PERIOD.

III. EVENT PROBABILITIES 29 OCT-31 OCT

CLASS M 60/60/50

CLASS X 05/05/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 27 OCT 191

ESTIMATED 28 OCT 186

PREDICTED 29 OCT-31 OCT 180/174/167

90 DAY MEAN 27 OCT 164

V. GEOMAGNETIC A INDICES

OBSERVED AFR 26 OCT 025 AP 27 OCT 015

ESTIMATED AFR 27 OCT 016 AFR/AP 28 OCT 015/015

PREDICTED AFR/AP 29 OCT-31 OCT 025/025-030/030-020/020

SOLTERWARN

BT

HXUS BOU 281300

PREDM 06029 06030 05031

PREDX 00529 00530 00531

PREDP 00529 00530 00531

PCAF 00129

TENCM 18029 17430 16731

AFRED 02529 03030 02031

AFAPP 02529 03030 02031

KKK 43354 43334 45543

BT

HFUS 3 BOU 282200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 301B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 28 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 28/1200Z TO 28/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST NINE HOURS. NO FURTHER GROWTH IS REPORTED IN REGION 3961(S06W10), A LARGE BUT SIMPLE CLASS E SPOT GROUP. A MINOR DELTA CONFIGURATION EXISTS IN ITS TRAILING PORTION. COMPLEX MAGNETIC CONFIGURATIONS CONTINUE TO LEND INTEREST TO REGIONS 3955(S11W50) AND 3960(N13W18) IN SPITE OF THEIR SMALL AND DECAYING SUNSPOTS. AN ACTIVE FILAMENT HAS FORMED NEAR THE HIGH GRADIENT IN REGION 3960. ALL OTHER REGIONS ARE SMALL AND DECAYING.

IB. SOLAR ACTIVITY FORECAST: CLASS M EVENTS MAY YET OCCUR IN THE THREE REGIONS DISCUSSED ABOVE. NO SIGNIFICANT ACTIVITY IS EXPECTED TO RETURN AT EAST LIMB IN THE NEXT THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: A MINOR GEOMAGNETIC STORM COMMENCED GRADUALLY AT ABOUT 1900Z. MINOR STORM CONDITIONS ARE EXPECTED TO PERSIST FOR AT LEAST THE NEXT 48 HOURS AND REMAIN ACTIVE FOR THE THIRD DAY.

III. EVENT PROBABILITIES 29 OCT-31 OCT

CLASS M 60/60/50

CLASS X 05/05/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 28 OCT 184

PREDICTED 29 OCT-31 OCT 180/174/167

90 DAY MEAN 28 OCT 165

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 27 OCT 013/015

ESTIMATED AFR/AP 28 OCT 015/015

PREDICTED AFR/AP 29 OCT-31 OCT 025/025-030/030-020/020

SOLTERWARN

BT