

HFUS 1 BOU 031300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 276A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 03 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 03/1200Z: SOLAR ACTIVITY HAS REMAINED LOW DESPITE THE SLOW GROWTH AND MAGNETIC DEVELOPMENT OF SEVERAL REGIONS ALONG WITH A GRADUAL RISE IN THE X-RAY FLUX BACKGROUND DURING RECENT HOURS. REGIONS 3917 (N17W57), 3919 (S12W60) AND 3921 (S18W35) HAVE ALL INCREASED IN COMPLEXITY AND NOW DISPLAY MAGNETIC DELTA CONFIGURATIONS. REGION 3919 PRODUCED THE LARGEST FLARE OF THE PERIOD, A C4/SB AT 02/1634Z MAXIMUM. REGION 3922 (N15W44) CONTINUES AS THE LARGEST AND MOST IMPRESSIVE OF THE DISK REGIONS WITH A STRONG MAGNETIC GRADIENT IN ITS NORTHERN TRAILER SECTION, BUT HAS FAILED TO PRODUCE ANY SIGNIFICANT ACTIVITY DURING THE PERIOD. REGION 3930 (N13W33) IS LOCATED IN CLOSE PROXIMITY TO 3922 AND HAS SHOWN RAPID GROWTH DURING RECENT HOURS TO THE POINT WHERE ITS LEADER SPOTS ARE INTERACTING WITH THE TRAILERS OF REGION 3922. THE REMAINING REGIONS ON THE DISK HAVE BEEN REPORTED AS STABLE AND LITTLE CHANGED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO INCREASE TO THE MODERATE CATEGORY. REGION 3922 NOW HAS A VERY GOOD POTENTIAL FOR CLASS-M FLARES. REGIONS 3919 AND 3921 SHOULD PRODUCE AT LEAST ONE M-CLASS EVENT EACH PRIOR TO THEIR WEST LIMB ROTATION. ONCE THESE THREE REGIONS NEAR WEST LIMB (IN APPROXIMATELY THREE DAYS), SOLAR ACTIVITY AND 10.7CM RADIO FLUX SHOULD DECREASE SIGNIFICANTLY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST 24 HOURS. UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS SHOULD CONTINUE THROUGH THE NEXT 24 HOURS, FOLLOWED BY A GRADUAL SETTLING OF THE FIELD FOR THE LAST TWO DAYS.

III. EVENT PROBABILITIES 04 OCT-06 OCT

CLASS M 70/70/50

CLASS X 10/10/05

PROTON 10/10/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 OCT 213

ESTIMATED 03 OCT 210

PREDICTED 04 OCT-06 OCT 205/200/190

90 DAY MEAN 02 OCT 169

V. GEOMAGNETIC A INDICES

OBSERVED AFR 01 OCT 020 AP 02 OCT 027

ESTIMATED AFR 02 OCT 022 AFR/AP 03 OCT 015/021

PREDICTED AFR/AP 04 OCT-06 OCT 015/020-012/015-010/015

SOLTERWARN

BT

NNNN CVZGVZL VZO VZ SV

NNNN CVZGVZL VZO VZ SV

NNNN CVZGVZL VZO UU

KBOU

HFUS 3 BOU 032200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 276B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 03 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200Z TO 03/2100Z: SOLAR ACTIVITY HAS BEEN LOW WITH NO EVENTS OVER C3 BEING OBSERVED. DATA TODAY SHOW CURRENT DISK REGIONS AS LESS DYNAMIC THAN PERCEIVED YESTERDAY. REGION 3922 (N15W56) HAS DEVELOPED ANOTHER DELTA IN ITS TRAILER BUT MAXIMUM MAGNETIC GRADIENTS HAVE DECREASED. THE GROWTH TREND OF NEARBY 3930 (N13W39) HAS SLOWED BUT IS CONTINUING. 3921 (S18W41) IS SHOWING MIXED POLARITIES AND SOME FLUX EMERGENCE. REGION 3919 (S12W66) HAS PRODUCED SEVERAL SUBFLARES AND APPEARS TO BE GROWING.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REACH MODERATE LEVELS IN SPITE OF THE CURRENT LULL. THE CONTINUED GROWTH IN REGION 3930 AND STILL DYNAMIC MAGNETIC EVOLUTION OF 3922 INDICATE M FLARE ACTIVITY REMAINS PROBABLE. REGIONS 3919 AND 3921 COULD STILL PRODUCE AN ISOLATED CLASS M FLARE PRIOR TO WEST LIMB TRANSIT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED. NO SOLAR ACTIVITY OR FEATURES HAVE OCCURRED OR ARE PRESENT WHICH WOULD INDICATE ANY POTENTIAL DISTURBANCE OF THE EARTH'S FIELD DURING THE FORECAST PERIOD. UNSETTLED CONDITIONS ARE EXPECTED TO CONTINUE THROUGH 05 OCT WITH NEAR QUIET LEVELS LIKELY ON 06 OCT.

III. EVENT PROBABILITIES 04 OCT-06 OCT

CLASS M 70/70/50

CLASS X 10/10/05

PROTON 10/10/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 OCT 195

PREDICTED 04 OCT-06 OCT 183/165/150

90 DAY MEAN 03 OCT 170

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 02 OCT 019/027

ESTIMATED AFR/AP 03 OCT 012/013

PREDICTED AFR/AP 04 OCT-06 OCT 012/015-012/015-008/010

SOLTERWAR N

BT

NNNN SV

UU