

HFUS 1 BOU 101300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 283A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 10 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 09/1200Z TO 10/1200Z: SOLAR ACTIVITY HAS CONTINUED LOW WITH NO XRAY EVENTS GREATER THAN C1 FOR THE PAST THREE DAYS. MORE FREQUENT SUBFLARE ACTIVITY HAS ACCOMPANIED EPISODES OF MINOR GROWTH IN REGION 3938(N22E04), REGION 3940(N15W02) AND NEW REGION 3944(N08E21). REGION 3938 HAS 29 SPOTS, A STEEP MAGNETIC GRADIENT AND A MAGNETIC CONFIGURATION TWISTED FROM THE NORMAL ORIENTATION. AN EQUATORIAL FILAMENT DISAPPEARED AT ABOUT 09/2000Z NEAR CENTRAL MERIDIAN, A LOCATION BETWEEN THE DEVELOPING COMPLEX OF SMALL REGIONS AND A NARROWING CORONAL HOLE. A VERY SMALL REGION 3942(N15W38) HAS EMERGED ON THE OPPOSITE SIDE OF THIS CORONAL HOLE. SMALL REGIONS HAVE ROTATED INTO VIEW: REGION 3943(S12E68) AND REGION 3945(N17E74). THE LATTER IS A SOURCE OF A WEAK RADIO NOISE STORM.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW FOR THE NEXT THREE DAYS BUT WITH SMALL FLARES INCREASING IN SIZE AND FREQUENCY. ADDITIONAL ACTIVE REGIONS ARE EXPECTED AT BOTH NE AND SE LIMBS. THE SLOWLY GROWING CLUSTER OF REGIONS NEARING CENTRAL MERIDIAN IS EXPECTED TO STRENGTHEN AS LARGE-SCALE CONVERGENCE AND SHEAR CONTINUE IN ITS VICINITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED WITH SOME PERIODS OF QUIET CONDITIONS. ACTIVITY IS EXPECTED TO INCREASE AS THE EARTH ENCOUNTERS A MAJOR NEUTRAL SHEET AND PASSES INTO THE INFLUENCE OF A CORONAL HOLE AND REARRANGING CORONAL MAGNETIC FIELDS. A MINOR GEOMAGNETIC STORM IS EXPECTED TO COMMENCE BY 13 OCTOBER AS A RESULT OF THE FILAMENT ERUPTION ON 9 OCTOBER.

III. EVENT PROBABILITIES 11 OCT-13 OCT

CLASS M 10/10/15

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 OCT 138

ESTIMATED 10 OCT 138

PREDICTED 11 OCT-13 OCT 140/142/145

90 DAY MEAN 09 OCT 169

V. GEOMAGNETIC A INDICES

OBSERVED AFR 08 OCT 018 AP 09 OCT 007

ESTIMATED AFR 09 OCT 005 AFR/AP 10 OCT 008/015

PREDICTED AFR/AP 11 OCT-13 OCT 012/015-015/015-035/030

SOLTERWARN

BT

