

HFUS-3-BOU 111305

SDF NUMBER 282A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 11 OCTOBER 1980

I.A. SOLAR ACTIVITY HAS CONTINUED AT THE MODERATE LEVEL DURING THE PAST 24 HOURS. THE 2725/2726 COMPLEX (CENTERED AT S 12E 30) HAS BEEN A FREQUENT PRODUCER OF ACTIVITY WITH THE LARGEST EVENT OBSERVED AT 0359Z MAXIMUM, AN M2/1B FROM REGION 2726. MINOR DISCRETE FREQUENCY RADIO BURSTS WERE RECORDED WITH THIS EVENT. THE FLARE OCCURRED IN THE TRAILER PORTION OF 2726, IN PARALLEL RIBBONS, ALONG AN ACTIVE AREA OF A NW-SE NEUTRAL LINE. ALTHOUGH SPOT GROWTH IS NOT TOO EVIDENT, THIS COMPLEX HAS DEVELOPED A DELTA MAGNETIC CONFIGURATION IN THE NORTHERN PORTION OF 2725 AS IT CONTINUES TO RE-STRUCTURE. REGION 2717 (N 14E 02) HAS CONTINUED TO ELONGATE AND SIMPLIFY, MANAGING TO PRODUCE ONLY ONE SMALL SURFLARE IN THE PAST 24 HOURS. REGIONS 2724 (N 12W 13) AND 2713 (S 09W 44) CONTINUE TO GROW SLOWLY, DISPLAY ARCH FILAMENTS, AND HAVE BEGUN SOME MINOR FLARE ACTIVITY.

I.B. SOLAR ACTIVITY WILL CONTINUE MODERATE THROUGH THE FORECAST PERIOD. THE 2725/2726 COMPLEX IS NOW THE MOST DOMINANT ARE ON THE DISK AND COULD PRODUCE AN ISOLATED X-CLASS EVENT AT ANY TIME. ITS LOCATION IS NOW BECOMING CONDUSIVE FOR A PROTON FLARE.

ISOLATED M-CLASS EVENTS ARE PROBABLE FROM THE 2717/2724 COMPLEX.

II. THE GEOMAGNETIC FIELD WAS UNSETLED UNTIL 0209Z WHEN A Sudden COMMENCEMENT OF 68 GAMMAS WAS OBSERVED AT BOULDER. ACTIVE CONDITIONS FOLLOWED UNTIL APPROXIMATELY 0615Z WHEN A K VALUE OF SIX WAS OBSERVED WITH A 160-GAMMA SHIFT. AURORA WAS SITED IN NORTH-EAST MISSOURI DURING THIS TIME PERIOD. THE CURRENT LEVEL OF ACTIVE TO MINOR STORM CONDITIONS IS EXPECTED TO PERSIST FOR THE NEXT 24 HOURS. THE SUSPECTED CAUSE WAS A FORVORABLY LOCATED CORONAL HOLE.

III. EVENT PROBABILITIES: 12 OCTOBER - 14 OCTOBER

CLASS M 9/0/9/0/0

CLASS X 15/2/0/2/0

PROTON 15/2/0/2/0

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 10 OCT 233

ESTIMATED 11 OCT 235

PREDICTED 12-14 OCT 238/236/230

V. GEOMAGNETIC INDICES

OBSERVED AFR 09 OCT 13 APR 10 OCT 22

ESTIMATED AFR 10 OCT 13 APR/AP 11 OCT 33/40

PREDICTED AFR/AP 12-14 OCT 20/20 15/16 12/15

SOLTERWARN

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HFUS-1 BOU 112200 COR  
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO  
SD F NUMBER 285B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 11 OCTOBER 1980.

I A. SOLAR ACTIVITY HAS BEEN LOW, LIMITED TO NUMEROUS CLASS C FLARES. THE LARGEST SINCE 1200Z HAVE BEEN A C7/1B EVENT AT 1745Z IN REGION 2725 (S08E21) AND A C7/SB AT 2021Z IN REGION 2724 (N12W21). NUMEROUS SMALLER EVENTS HAVE OCCURRED IN REGION 2626 (S12E21) WHICH IS THE SOUTHERN PORTION OF THE EXTREMELY COMPLEX ACTIVE CENTER THAT INCLUDES REGION 2625. AMONG THE HUNDRED SUNSPOTS IN THIS CENTER ARE TWO PENUMBRAL AREAS CONTAINING BOTH MAGNETIC POLARITIES. GROWTH AND INCREASED MAGNETIC COMPLEXITY ARE APPARENT ALSO IN REGION 2624. A SMALL NEW REGION 2633 HAS FORMED AT N07W40 AND REGION 2634 HAS ROTATED INTO VIEW AT S29E62.

IB. MODERATE ACTIVITY WILL CONTINUE. CLASS X AND PROTON EVENTS MAY OCCUR IF STRONGER SPOTS DEVELOP IN EITHER REGION 2624 OR COMPLEX 2725/26.

II. MINOR MAGNETIC STORM CONDITIONS CONTINUED FROM 1200Z UNTIL 1500Z. UNSETTLED CONDITIONS HAVE PREVAILED SINCE THEN. UNSETTLED CONDITIONS WILL DOMINATE THE NEXT THREE DAYS. ISOLATED ACTIVE PERIODS MAY OCCUR FOR THE NEXT 24 HOURS.

III. EVENT PROBABILITIES 12 OCTOBER - 14 OCTOBER

CLASS M 90/90/90

CLASS X 15/20/20

PROTON 15/20/20

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 11 OCTOBER 242

PREDICTED 12-14 OCTOBER 238/236/230

90-DAY MEAN 11 OCTOBER 185

V. GEOMAGNETIC INDICES

OBSERVED AFR/AP 10 OCTOBER 17/22

ESTIMATED AFR/AP 11 OCTOBER 32/37

PREDICTED AFR/AP 12-14 OCTOBER 17/20 - 15/15 - 12/10

SOLTERWARN BT