

HFUS , BOU 101300

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 283A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1300Z 10 OCTOBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 09/1200Z TO 10/1200Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. REGION 3390 (S18E53) HAS NOW BEEN SEPARATED INTO 2 INTERACTING REGIONS, 3390 AND 3397 (S21E43), BOTH OF WHICH CONTAIN MAGNETIC DELTA CONFIGURATIONS. THESE REGIONS HAVE BEEN PRODUCING NEARLY CONTINUOUS C-CLASS (X-RAY) SUBFLARES. REGION 3388 (S09W30) IS A LARGE COMPLEX E-TYPE GROUP WITH GOOD FLARE POTENTIAL BUT IT IS STABLE AT THIS TIME. REGION 3393 (S17E25) IS GROWING RAPIDLY AND IS EXHIBITING A LARGE WELL DEVELOPED ARCH FILAMENT SYSTEM.

SURGING HAS ACCOMPANIED THE WEST LIMB TRANSIT OF 3375 (N14W92).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH REGIONS 3390/3397 AND 3388 OFFERING THE BEST POTENTIAL FOR SIGNIFICANT OR MAJOR FLARES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO ACTIVE DURING THE PAST 24 HOURS. THE LEVEL OF ACTIVITY IS EXPECTED TO INCREASE TO NEAR STORM CONDITIONS OVER THE NEXT 2 DAYS IN RESPONSE TO EJECTA FROM A MAJOR SOLAR FLARE ON 07 OCTOBER. UNSETTLED TO QUIET CONDITIONS SHOULD RETURN BY THE THIRD DAY OF THE FORECAST UNLESS ADDITIONAL MAJOR FLARE ACTIVITY OCCURS. THE SMALL SATELLITE PROTON EVENT WHICH BEGAN ON 08/1235Z CONTINUES IN PROGRESS. FLUXES REACHED 41 PROTONS/CM²-SEC-STER AT 0900 ON 10 OCTOBER AND ARE REMAINING NEAR THAT LEVEL AT THIS TIME. AN ASSOCIATED POLAR CAP ABSORPTION EVENT IS IN PROGRESS. THE PROTON INFLUX COULD CONTINUE AND INTENSIFY WITH THE ANTICIPATED ARRIVAL OF DISTURBED SOLAR WIND DURING THE NEXT 24 TO 36 HOURS.

III. EVENT PROBABILITIES 11 OCTOBER - 13 OCTOBER

CLASS M 80/70/60

CLASS X 20/15/10

PROTON 10/15/10

PCA IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 OCTOBER 203

ESTIMATED 10 OCTOBER 205

PREDICTED 11-13 OCTOBER 204/202/200

90-DAY MEAN 09 OCTOBER 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR 08 OCTOBER 24 AP 09 OCTOBER 20

ESTIMATED AFR 09 OCTOBER 19 AFR/AP 10 OCTOBER 20/14

PREDICTED AFR/AP 11-13 OCTOBER 20/25 - 25/25 - 10/15

SOLTERWARN

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HFUS 3 BOU 102200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 283B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 0200Z 10 OCTOBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 10/1200Z TO 10/2100Z: SOLAR ACTIVITY HAS BEEN AT MODERATE LEVELS DURING THIS PERIOD. REGIONS 3390 (S18E47) AND 3388 (S09W35) HAVE BOTH PRODUCED M-CLASS ACTIVITY, THE LARGEST AN M2/SB FROM REGION 3388 AT 10/2102Z. REGION 3390 PRODUCED AN M1/2B, ONLY MINOR RADIO RECORDED, AT 10/1426Z AND AN M1/1B AT 10/1251Z. NEW REGION 3400 (S05E68) SIMPLE A-TYPE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE AT MODERATE LEVELS DURING THE FORECAST PERIOD. REGIONS 3390/97 AND 3388 HAVE THE BEST POTENTIAL FOR SIGNIFICANT EVENTS. REGIONS 3390/97 COULD PRODUCE AN ISOLATED X-CLASS EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY ACTIVE THIS PERIOD. THE FIELD IS EXPECTED TO BE ACTIVE WITH PERIODS AT MINOR STORM UNTIL 13 OCTOBER. THE SMALL SATELLITE PROTON EVENT WHICH BEGAN AN 08/1235Z CONTINUES IN PROGRESS.

III. EVENT PROBABILITIES 11 OCTOBER - 13 OCTOBER

CLASS M 75/75/75

CLASS X 15/15/15

PROTON 10/15/10

PCA IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 10 OCTOBER 214

PREDICTED 11-13 OCTOBER 212/208/200

90-DAY MEAN 10 OCTOBER 216

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 09 OCTOBER 19/20

ESTIMATED AFR/AP 10 OCTOBER 19/24

PREDICTED AFR/AP 11-13 OCTOBER 20/25 - 25/25 - 10/15

SOLTERWARN

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