

HFUS , POU 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

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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

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