

HFUS 1 BOU 091300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 282A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 1300Z 09 OCTOBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
08/1200Z TO 09/1200Z:

SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. HOWEVER, REGIONS  
3375 (N14W80), 3388 (S10W17), AND 3390 (S19E61) ALL REMAIN CAPABLE  
OF SIGNIFICANT FLARES. REGION 3388 HAS GROWN RAPIDLY, DOUBLING IN  
SPOT COUNT AND TRAILER PENUMBRAL AREA. REGION 3390 MAY WELL BE TWO  
INTERACTING REGIONS. THE LARGEST SPOT NOW ASSOCIATED WITH 3390  
HAS 5 DEGREES OF LATITUDINAL EXTENT AND CONTAINS UMBRA OF BOTH PO-  
LARITIES (A MAGNETIC DELTA CONFIGURATION). ALL THREE REGIONS  
HAVE BEEN PRODUCING C-CLASS SUBFLARES.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH THE POSSIBILITY OF  
MAJOR FLARES FROM 3390.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO SLIGHTLY ACTIVE FOR THE  
PAST 24 HOURS. THE FIELD IS EXPECTED TO REMAIN MOSTLY UNSETTLED  
TOMORROW BUT SHOULD BECOME ACTIVE ON OCTOBER 11, 12 IN RESPONSE TO  
THE X3 FLARE LATE ON 7 OCTOBER. A SMALL SATELLITE PROTON EVENT  
WHICH BEGAN ON 8 OCTOBER 1235Z HAS REINTENSIFIED AND IS CURRENTLY  
NEAR A MAXIMUM VALUE OF 29 PROTONS/CM<sup>2</sup>/SEC/STER WHICH OCCUR-  
RED 09 OCTOBER 1125Z. THE PROTON EVENT IS EXPECTED TO DECLINE  
BELOW THRESHOLD BY 10 OCTOBER 0600Z.

III. EVENT PROBABILITIES: 10 OCT - 12 OCT

CLASS M 80/80/80

CLASS X 10/20/20

PROTON 05/10/10

PCAF RED

IV. OTTAWA 10.7 FLUX

OBSERVED 08 OCT 206

ESTIMATED 09 OCT 200

PREDICTED 10-12 OCT 200/200/196

90 DAY MEAN 08 OCT 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR 07 OCT 24 AP 08 OCT 27

ESTIMATED AFR 08 OCT 24 AFR/AP 09 OCT 14/20

PREDICTED AFR/AP 10-12 OCT 12/14 20/25 25/25

SOLTERWARN

BT

HFUS 3 BOU 092200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 282B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 0200Z 09 OCTOBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 09/1200Z TO 09/2100Z: SOLAR ACTIVITY HAS CONTINUED AT A LOW LEVEL THIS PERIOD. ONLY SMALL C-CLASS EVENTS HAVE BEEN RECORDED. THE LARGEST A C4/1B OCCURRED AT 09/1310Z FROM REGION 3390 (S19E58). REGIONS 3388 (S10W22) AND 3390 EXHIBIT SOME INCREASE IN MAGNETIC COMPLEXITY AND NOW CONTAIN DELTA CONFIGURATIONS. NEW REGIONS TODAY: 3395 (N17E44) AND 3396 (N14W12) BOTH SIMPLE A-TYPE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE AS BOTH REGIONS 3388 AND 3390 APPEAR CAPABLE OF M-CLASS ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO SLIGHTLY ACTIVE THIS PERIOD. THE FIELD IS EXPECTED TO CONTINUE UNSETTLED UNTIL 11 OCTOBER WHEN ACTIVE CONDITIONS ARE EXPECTED FOR THE REST OF THE FORECAST PERIOD. THE SATELLITE PROTON EVENT WHICH BEGAN ON 08/1235Z OCTOBER CONTINUES IN PROGRESS. THE PROTON EVENT IS EXPECTED TO DECLINE BELOW THRESHOLD LEVELS BY 10 OCTOBER 0600Z. HOWEVER, IF A STRONG SUDDEN COMMENCEMENT OCCURS, IN THE GEOMAGNETIC FIELD, THEN PROTONS ARE EXPECTED TO AGAIN EXCEED EVENT LEVELS.

III. EVENT PROBABILITIES 10 OCTOBER - 12 OCTOBER

CLASS M 80/80/80

CLASS X 10/20/20

PROTON 05/10/10

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 OCTOBER 203

PREDICTED 10-12 OCTOBER 200/200/196

90-DAY MEAN 09 OCTOBER 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 08 OCTOBER 24/27

ESTIMATED AFR/AP 09 OCTOBER 15/20

PREDICTED AFR/AP 10-12 OCTOBER 12/14 - 20/25 - 25/25

SOLTERWARN

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