

HFUS 1 BOU 041300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 035A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 04 FEB 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200Z TO 04/1200Z: SOLAR ACTIVITY HAS BEEN LOW. THE LARGEST X-RAY EVENT WAS A C5 AT 1826Z. THOUGH REGION 4077 (S17W23) HAS DECREASED IN SUNSPOT AREA, THE DELTA CONFIGURATION REMAINS. RESTRUCTURING CONTINUES IN REGION 4077. REGION 4079 (S17E24) HAS STARTED A NEW GROWTH PHASE. REGIONS 4081 (S09E37) AND 4082 (S07E16) WERE ADDED YESTERDAY WITH GROWTH CONTINUING IN REGION 4081. ADDITIONALLY, FLUX IS EMERGING NEAR N12E56 AND S14E21. THE FLUX NEAR REGION 4079 CURRENTLY HAS MODERATE GROWTH WITH FLARES OCCURRING AT THE SITE.

IB. SOLAR ACTIVITY FORECAST: REGION 4077 STILL RETAINS THE POTENTIAL FOR ISOLATED ENERGETIC FLARE ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED AND IS EXPECTED TO REMAIN SO UNTIL THE ONSET OF THE MAGSTORM. BECAUSE OF THE DELAYED ARRIVAL OF PROTONS, THE MAGSTORM IS ALSO EXPECTED TO BE DELAYED; THE BRUNT OF THE STORM IS EXPECTED ON 05 FEBRUARY. A SATELLITE PROTON EVENT BEGAN AT 0040Z WITH THE GREATER THAN 10 MEV FLUX REACHING A MAXIMUM OF 140 P/CM2/SEC/STER AT 0935Z. A CALCULATED PCA EVENT BEGAN NEAR 0200Z AND REACHED A MAXIMUM OF 3.7 DB NEAR 1000Z.

III. EVENT PROBABILITIES 05 FEB-07 FEB

CLASS M 50/50/50

CLASS X 10/10/10

PROTON 10/10/10

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 FEB 150

ESTIMATED 04 FEB 153

PREDICTED 05 FEB-07 FEB 150/147/145

90 DAY MEAN 03 FEB 170

V. GEOMAGNETIC A INDICES

OBSERVED AFR 02 FEB 003 AP 03 FEB 008

ESTIMATED AFR 03 FEB 007 AFR/AP 04 FEB 015/030

PREDICTED AFR/AP 05 FEB-07 FEB 049/040-018/020-012/020

SOLTERWARN

BT

BT  
HFUS 3 BOU 042200  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 035B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 2200Z 04 FEB 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
04/1200Z TO 04/2100Z: SOLAR ACTIVITY HAS BEEN LOW DURING THIS  
PERIOD. REGION 4079 (S17E17) PRODUCED ALL OF THE EVENTS OBSERVED  
THIS PERIOD THE LARGEST WAS A C2/SN AT 04/1611UT. REGION 4079  
HAS CONTINUED TO EXHIBIT GROWTH AND IS NOW A LARGE D TYPE GROUP  
BUT STILL HAS A SIMPLE NEUTRAL LINE. REGION 4077 (S16W30) HAS  
BEEN OMINOUSLY STABLE HOWEVER IT STILL CONTAINS A DELTA. THE  
REST OF THE REGIONS LITTLE CHANGED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO  
CONTINUE LOW UNLESS REGION 4077 PRODUCES A MAJOR EVENT. REGION  
4079 MAY BECOME A M CLASS EVENT PRODUCER IF GROWTH CONTINUES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS  
GENERALLY UNSETTLED UNTIL 1615UT WHEN A SUDDEN COMMENCEMENT OF  
80 GAMMAS WAS OBSERVED. THE FIELD HAS BEEN AT MAJOR STORM  
LEVELS SINCE THE SSC WITH K VALUES OF 7 AT MID LATITUDE SITES  
AND VALUES OF 8 AT THE HIGH LATITUDE SITES. THE FIELD IS  
EXPECTED TO REMAIN AT MAJOR LEVELS THRU MID DAY OF 5 FEB. THE  
SATELLITE PROTON EVENT CONTINUES IN PROGRESS THE EVENT REACHED  
A MAXIMUM OF 340 P/CM2/SEC/STER AT GREATER THAN 10MEV AT  
1620UT. THE PROTON EVENT IS EXPECTED TO CONTINUE FOR THE NEXT  
20 HOURS. THE CALCULATED PCA EVENT WHICH BEGAN NEAR 0200UT  
CONTINUES IN PROGRESS.

FREDERICKSBURG A VALUE FOR 03 FEB WAS NOT RECEIVED AT THIS  
STATION HOWEVER THE ESTIMATE FOR FREDERICKSBURG IS 7 (SEVEN).

III. EVENT PROBABILITIES 05 FEB-07 FEB

CLASS M 50/50/50  
CLASS X 10/10/10  
PROTON 10/10/10  
PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 FEB 161  
PREDICTED 05 FEB-07 FEB 168/165/160  
90 DAY MEAN 04 FEB 171

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 FEB 000/008  
ESTIMATED AFR/AP 04 FEB 050/045  
PREDICTED AFR/AP 05 FEB-07 FEB 055/050-018/030-012/015  
SOLTERWARN

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