

HFUS 1 BOU 201400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 110A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1200UT 20 APRIL 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
19/1200UT TO 20/1200UT:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. REGION  
3038 (N10W69) HAS PRODUCED ALL FOUR OF THE M-CLASS EVENTS THIS PERIOD.  
A M1/IN AT 19/1539UT A M1/IB AT 19/1713UT A M1/SN AT 20/0339UT  
AND A M1/IB AT 20/1102UT. REGION 3049 (N15W01) HAS INCREASED  
IN BOTH SIZE AND COMPLEXITY THIS PERIOD.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE AT OR NEAR MODERATE LEVELS DURING  
THE FORECAST PERIOD. ALTHOUGH REGION 3038 IS SHOWING SIGNS OF DECAY  
IT'S PROXIMITY TO REGION TO REGION 3035 (N14W80) GIVES IT THE  
POTENTIAL FOR CONTINUED M-CLASS ACTIVITY. REGIONS 3049 AND 3045  
(S07W42) BOTH HAVE THE POTENTIAL FOR ENERGETIC ACTIVITY, IF GROWTH  
CONTINUES.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS AT MAJOR STORM LEVELS DURING THE PERIOD  
0300-0900UT 20 APRIL. THE FIELD WAS UNSETTLED TO ACTIVE DURING THE  
REST OF THE PERIOD. THE GEOMAGNETIC FIELD IS EXPECTED TO BE GENERALLY  
UNSETTLED DURING THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 21 - 23 APRIL

CLASS M 95/85/70

CLASS X 10/05/05

PROTON 10/05/02

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 19 APR 215

ESTIMATED 20 APR 205

PREDICTED 21-23 APR 190/180/175

90 DAY MEAN 19 APR 210

V. GEOMAGNETIC A INDICES

OBSERVED AFR 18 APR 14 AP 19 APR 42

ESTIMATED AFR 19 APR 23 AFR/AP 20 APR 33/42

PREDICTED AFR/AP 21-23 APR 13/20 13/20 10/10

SOLTERWARN

BT

HFUS 3 BOU 202107

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 110B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200UT 20 APRIL 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
20/1200UT TO 20/2200UT:

SOLAR ACTIVITY HAS BEEN HIGH DURING THE PAST 10 HOURS. REGION  
3035 (N14W86) PRODUCED A X1/2B FLARE BEGINNING AT 1612Z.  
RADIO BURSTS OCCURRED ACROSS THE SPECTRUM WITH 24,000 FU AT  
245 MHZ AND 240 FU AT 2695 MHZ. A WEAK TYPE II DEKAMETRIC  
BURST ALSO OCCURRED. STRONG SHORT WAVE FADE THROUGH 22 MHZ  
WAS OBSERVED.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE UNTIL REGIONS  
3035 AND 3038 PASS WELL BEYOND WEST LIMB.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS AT MAJOR STORM LEVELS DURING THE  
PERIOD 03-09Z 20 APRIL. GOOD VISUAL AURORA WAS OBSERVED IN  
WISCONSIN. THE FIELD WAS AT MINOR STORM LEVEL AFTER 1330Z.  
THE FIELD IS EXPECTED TO BE ACTIVE, WITH PERIODS AT STORM LEVEL,  
THROUGH THE NEXT 24-36 HOURS. THE FIELD IS THEN EXPECTED TO  
LESSEN TO UNSETTLED CONDITIONS.

III. EVENT PROBABILITIES: 21 - 23 APRIL

CLASS M 95/85/70

CLASS X 10/05/05

PROTON 10/05/02

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 20 APR 199

PREDICTED 21-23 APR 185/170/160

90 DAY MEAN 20 APR 211

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 APR 33/42

ESTIMATED AFR/AP 20 APR 36/42

PREDICTED AFR/AP 21-23 APR 25/20 13/20 10/10

SOLTERWARN

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