

HFUS 1 BOH 101400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 100A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 10 APRIL 1981

I A: ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
09/1200UT TO 10/1200UT:

SOLAR ACTIVITY CONTINUES AT A MODERATE LEVEL. THE LARGEST  
EVENT WAS A X1/1B WITH 480 SFU AT 2695 MHZ FROM REGION 3035  
(N13E50) AT 10/1058UT. FIVE M CLASS FLARES OCCURRED EARLIER  
FROM REGION 3025 (N08W33), REGION 3038 (N08E65) AND 3027  
(N09W04). ALL THESE REGIONS ARE MAGNETICALLY COMPLEX AND ARE  
APPARENTLY STILL DEVELOPING. THERE HAS BEEN SIGNIFICANT TRAILER  
POLARITY GROWTH AROUND THE LEADER IN REGION 3025. PROPER MOTION  
IS EVIDENT IN REGION 3027 AND THE CENTER TWO SPOTS HAVE JOINED  
TO FORM A DELTA. THE ENTIRE AREA FROM REGIONS 3027 TO 3025 IS  
UNDERGOING RESTRUCTURING AND APPEAR TO BE INTERCONNECTED.

THE SOUTHERN HEMISPHERE IS INACTIVE AND NEARLY SPOTLESS.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO INCREASE FROM MODERATE TO HIGH  
LEVELS OVER THE NEXT FEW DAYS. REGIONS 3035, 3025, 3027, AND  
3038 ALL HAVE THE POTENTIAL FOR MAJOR FLARES AND IF DEVELOP-  
MENT CONTINUES IN THESE REGIONS PROTON EVENTS WILL BECOME MORE  
LIKELY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET TO UNSETTLED. THE FIELD  
IS EXPECTED TO BECOME MORE DISTURBED, REACHING ACTIVE LEVELS  
EARLY IN THE FORECAST PERIOD AS A RESULT OF EARLIER FLARES.  
THE FIELD MAY REACH ACTIVE CONDITIONS LATE IN THE PERIOD AS  
A RESULT OF TODAYS X1 IN REGION 3035.

III. EVENT PROBABILITIES: 11 APR - 13 APR

CLASS M 95/95/95

CLASS X 20/25/30

PROTON 20/25/25

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 09 APR 273

ESTIMATED 10 APR 280

PREDICTED 11-13 APR 282/280/275

90 DAY MFAN 09 APR 201

V. GEOMAGNETIC A. INDICES

OBSERVED AFR 08 APR 13 AP 09 APR 11

OBSERVED AFR 09 APR 10 AFP/AP 10 APR 07/10

PREDICTED AFR/AP 11-13 APR 20/25 25/28 20/25

SOLTERWARN

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HEUS 3 BOU 102200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDE NUMBER 100B

JOINT USAF/NQAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200UT 10 APRIL 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
10/1200UT TO 10/2200UT:

SOLAR ACTIVITY WAS AT HIGH LEVELS DURING THIS PERIOD.

REGION 3025 (N10W41) PRODUCED AN X2/3B FLARE AT 1703 UT (MAX).  
PROTONS FROM THIS FLARE REACHED EVENT CRITERIA AT 1830UT AND  
THE FLUX AT 2130UT WAS 30 PARTICLES/CM<sup>2</sup>/SEC GT 10 MEV. TYPE  
II AND TYPE IV RADIO SIGNATURES WERE OBSERVED, AS WELL AS A  
CASTELLI U RADIO DISTRIBUTION, WITH 2600 FU AT 8800 MHZ, 600  
FU AT 2695 MHZ, AND 1100 FU AT 2450 MHZ.

IB. SOLAR ACTIVITY FORECAST:

ACTIVITY SHOULD REMAIN AT MODERATE TO HIGH LEVELS. THERE ARE  
STILL FOUR REGIONS CAPABLE OF MAJOR FLARE PRODUCTION.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETLED. IT IS FORECAST TO  
BE AT ACTIVE OR MINOR STORM LEVELS FOR THE NEXT THREE DAYS.  
IN PARTICULAR, A SUDDEN COMMENCEMENT IS EXPECTED TO OCCUR  
ABOUT 13/0000UT IN RESPONSE TO TODAY'S MAJOR FLARE. PROTON  
FLUXES ARE EXPECTED TO MAX AT 60 PARTICLES GT 10 MEV ON 11 APRIL.

III. EVENT PROBABILITIES: 11-13 APRIL 81

CLASS M 95/95/95

CLASS X 35/35/35

PROTON 35/35/35

PCAF RED

IV. OTTAWA 0.7 FLUX:

OBSERVED 10 APRIL 276

PREDICTED 11-13 APRIL 282/280/275

90 DAY MEAN 10 APRIL 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 09 APRIL 11/11

ESTIMATED AFR/AP 10 APRIL 12/12

PREDICTED AFR/AP 11-13 APRIL 20/25 30/35 45/55

SOLTERWARN

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