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HFUS 1 BOU 111400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 101A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 1200UT 11 APRIL 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
10/1200UT TO 11/1200UT:

SOLAR ACTIVITY HAS BEEN HIGH. A PROTON FLARE X2/3B OCCURRED  
IN REGION 3025 (N09W46) AT 10/1655UT. IT WAS ACCOMPANIED BY  
TYPE II AND IV RADIO EMISSION, BURSTS OF 2600FU AT 8800 MHZ, 600  
FU AT 2695 MHZ AND 110FU AT 245MHZ, CASTELLI U RADIO DISTRIBU-  
TION AND AN IMPORTANCE 3 SHORT WAVE FADE. THERE HAS BEEN GROWTH  
IN THIS REGION AND IN REGION 3026 (N08W33). THESE TWO REGIONS  
ARE VERY CLOSE TOGETHER AND THE FLARE OCCURRED ALONG THE NEUTRAL  
LINE BETWEEN THEM. REGION 3035 (N14E37) IS GROWING AND CONTAINS  
A DELTA CONFIGURATION IN A SPOT GROUP OF CLASS/AREA F/1240. IT  
PRODUCED AN M2/1B FLARE AT 10/1913UT. REGION 3027 (N18W16) CON-  
TINUES TO DECAY. ALL OF THESE REGIONS CONTAIN COMPACT FLUCUATING  
PLAGES WITH BRIGHT POINTS AND SUBFLARES REPORTED THROUGHOUT  
THE DAY.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN HIGH. REGIONS 3025, 3026  
AND 3035 ARE CAPABLE OF FURTHER CLASS X PROTON FLARES AND ARE  
LIKELY TO PRODUCE CLASS M LEVEL ACTIVITY THROUGHOUT THE  
FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET TO UNSETTLED. ACTIVE TO  
MINOR STORM CONDITIONS ARE EXPECTED FOR THE NEXT THREE DAYS  
WITH A SUDDEN COMMENCEMENT EXPECTED ABOUT 13/0000UT IN RESPONSE  
TO THE X2 FLARE AT 10/1755UT. A PROTON EVENT BEGAN AT 10/1830UT  
AND REACHED MAXIMUM AT 10/2300UT AT GREATER THAN 10 MEV WITH  
40 PARTICLES/CM2/SEC/STER. IT IS DECLINING SLOWLY BUT SHOULD  
REMAIN ABOVE EVENT THRESHOLD FOR THE NEXT 24 HOURS.

III. EVENT PROBABILITIES: 12-14 APRIL

CLASS M 95/95/95

CLASS X 35/35/35

PROTON 35/35/35

PCAF RED

IV. OTTAWA 10.7 FLUX

OBSERVED 10 APRIL 276

ESTIMATED 11 APRIL 282

PREDICTED 12-14 APRIL 278/274/268

90 DAY MEAN 10 APRIL 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR 09 APRIL 11 AP 10 APRIL 09

ESTIMATED AFR 10 APRIL 09 AFR/AP 11 APRIL 13/25

PREDICTED AFR/AP 12-14 APRIL 30/35 45/55 20/20

SOLTERWARN

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HFUS 3 BOU 112200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 101B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200UT 11 APR 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
11/1200UT TO 11/2200UT:

SOLAR ACTIVITY WAS MODERATE DURING THIS PERIOD, BUT MUCH  
QUIETER THAN YESTERDAY. THERE WERE THREE M-CLASS EVENTS:

(1) M1/1B, 1338UT, REGION 3038 (N09E46); (2) M1/SN, 1830UT,  
REGION 3027 (N17W22); AND (3) M1/1B, 2004 UT, REGION 3035  
(N0EE31). AFTER A WEEK OF STEADY INCREASE, THE BACKGROUND  
10 CM FLUX HAS STARTED TO DECLINE.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH. THERE  
ARE STILL THREE OR FOUR REGIONS CAPABLE OF M-CLASS ACTIVITY.  
IN PARTICULAR, REGION 3035 APPEARS ABLE TO PRODUCE AN X-CLASS  
EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD BECAME DISTURBED AT ABOUT 1330 UT TODAY.  
ACTIVE OR MINOR STORM LEVELS OF ACTIVITY ARE EXPECTED TO  
PERSIST FOR 72 HOURS. AT 2100UT THE PROTON EVENT WAS STILL IN  
PROGRESS, WITH 40 PARTICLES GT 10 MEV/CM2/SEC. A STEADY DE-  
CLINE IN PROTON FLUX IS EXPECTED OVER THE NEXT 24 HOURS.

III. EVENT PROBABILITIES: 12-14 APR

CLASS M 95/95/95

CLASS X 35/35/35

PROTON 35/35/35

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 11 APR 271

PREDICTED 12-14 APR 265/260/255

90 DAY MEAN 11 APR 203

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 10 APR 11/09

ESTIMATED AFR/AP 11 APR 25/25

PREDICTED AFR/AP 12-14 APR 30/35 45/55 20/20

SOLTERWARN

BT