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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 133A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 1200UT 13 MAY 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
12/1200UT TO 13/1200UT:

SOLAR ACTIVITY HAS BEEN HIGH. AN X1/2P FLARE OCCURRED IN REGION  
3015 (N12E52). MAXIMUM AT 13/0425Z, ACCOMPANIED BY SHORTWAVE  
FADE AND STRONG TYPE IV CONTINUUM REPORTED FROM CULGOORA. C  
CLASS XRAY, SUP CLASS OPTICAL EVENTS FROM REGION 3106, 3100  
(S05W26), 3102 (N12W02), 3099 (N10W24) MADE UP THE BALANCE  
OF ACTIVITY. REGION 3099 HAS DECLINED IN AREA AND SPOT NUMBER.  
IT REMAINS COMPLEX. REGION 3106 APPEARS VERY COMPLEX. BOTH  
REGIONS CONTAIN DELTAS.

IR. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD BE MODERATE TO HIGH DUE TO ACTIVITY FROM  
REGIONS 3106 AND 3099 WITH POSSIBLE CONTRIBUTIONS FROM  
OTHER REGIONS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. IT SHOULD CONTINUE AT  
UNSETTLED TO ACTIVE LEVELS UNTIL LATE ON 15 MAY OR EARLY 16 MAY  
WHEN ONSET TO MINOR STORM LEVELS MAY BE EXPECTED DUE TO THE X1  
FLARE TODAY.

III. EVENT PROBABILITIES: 14-16 MAY

CLASS M 90/90/90

CLASS X 25/25/25

PROTON 15/15/15

SCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 12 MAY 219

ESTIMATED 13 MAY 225

PREDICTED 14-16 MAY 230/230/230

90 DAY MEAN 12 MAY 214

V. GEOMAGNETIC A INDICES

OBSERVED AFR 11 MAY 33 AP 12 MAY 15

ESTIMATED AFR 12 MAY 10 AFR/AP 13 MAY 14/14

PREDICTED AFR/AP 14-16 MAY 14/20 14/20 18/20

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HFUS 3 BOU 132200  
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO  
SDE NUMBER 133B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200 UT 13 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 13/1200 UT  
TO 13/2200 UT: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 3106  
(N14E43) HAS BEEN DIVIDED INTO TWO REGIONS. NEW REGION 3112  
(N15E52) IS SEPARATE MAGNETICALLY BUT THE PLAGE AREAS OF THE  
TWO REGIONS ARE VERY CLOSE AND INTERACTIVE. REGION 3112 PRODUCED  
A M1/IN AT 1817 UT. REGION 3106 HAS PRODUCED ONLY SMALL FLARES  
BUT REMAINS COMPLEX WITH STRONG MAGNETIC FIELD GRADIENTS. REGION  
3099 (N11W28) PRODUCED A C3/SB AT 1444 UT AND A C3/SN AT 1611 UT.  
NEW REGION 3113 (S26E76) HAS ROTATED ONTO THE DISK WITH A H-TYPE  
SPOT GROUP IN A MODERATE INTENSITY PLAGE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE  
MODERATE TO HIGH WITH MAJOR FLARES POSSIBLE FROM REGIONS 3099,  
3106 AND TO A LESSER EXTENT 3112.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
BEEN UNSETTLED. UNSETTLED CONDITIONS ARE EXPECTED UNTIL LATE ON  
15 MAY OR EARLY 16 MAY WHEN ACTIVE CONDITIONS ARE POSSIBLE FROM  
THE X1/3B FLARE 13/0425 UT.

III. EVENT PROBABILITIES 14 MAY - 16 MAY

CLASS M 90/90/90

CLASS X 25/25/25

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 MAY 217

PREDICTED 14-16 MAY 217/216/213

90-DAY MEAN 13 MAY 214

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 12 MAY 10/15

ESTIMATED AFR/AP 13 MAY 11/14

PREDICTED AFR/AP 14-16 MAY 14/20 - 14/20 - 18/20

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