

HFUS 1 BOU 251400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDN NUMBER 084A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 25 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
24/1200UT TO 25/1200UT:

SOLAR ACTIVITY HAS BEEN LOW SINCE 24/1200UT. ONLY SURFLARES  
HAVE OCCURRED, PRIMARILY FROM REGIONS 2984 (N08W76) AND 2993  
(N14W10). BOTH OF THESE REGIONS STILL HAVE DELTA MAGNETIC  
CONFIGURATIONS AND FEATURES CHARACTERISTIC OF ACTIVE REGIONS.  
SOME GROWTH HAS BEEN OBSERVED IN REGION 3001 (N22E40) AND WILL  
PROBABLY BECOME ERUPTIVE.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE THROUGH THE FORECAST  
PERIOD DUE TO THE POTENTIAL IN REGIONS 2984 AND 2993.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS QUIET 24 MAR AND ACTIVE THE FIRST  
HALF OF 25 MAR. UNSETTLED CONDITIONS ARE EXPECTED TO PREVAIL  
FOR THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 25 MAR - 28 MAR

CLASS M 70/60/5.0

CLASS X 10/05/05

ROT ON 10/05/05

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OB SERVED 24 MAR 185

EST IMATED 25 MAR 180

PRFD ICED 26-28 MAR 175/167/165

90 DAY MEAN 24 MAR 196

V. GEOMAGNETIC INDICES

OB SERVED AFR 23 MAR 03 AP 24 MAR 06

EST IMATED AFR 24 MAR 05 AFR/AP 25 MAR 20/20

PRFD ICED AFR/AP 26-28 MAR 12/15 10/12 12/12

SOLTERWARN

PT

NNN@BZ CVZDZEZFZGVZ IVZL VZOUU

KBOU

HFUS 3 BOU 252200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO.

SDF NUMBER 284B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200UT 25 MARCH 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
25/1200UT TO 25/2200UT:

SOLAR ACTIVITY TOOK AN ABRUPT TURN TO HIGH LEVELS WITH THE OCCURRENCE OF AN X/1/2B FLARE AT 2042Z MAXIMUM FROM REGION 2984 (N09W89 AT TIME OF FLARE). A 2695 MHZ RADIO BURST OF 220 FLUX UNITS ACCCOMPANIED THIS FLARE, BUT NO TYPE II OR IV RADIO SWEEPS WERE OBSERVED. REGION 2993 (N13W15) AND 2990 (N19W46) MANAGED TO PRODUCE SMALL C-CLASS SUBFLARES DURING THE PAST 10 HOURS. NEW REGIONS 3003 (S16E14) AND 3024 (N18E16) APPEARED ON THE DISK AS SIMPLE A-TYPE GROUPS.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH REGION 2993 BECOMING THE PRIME CONTRIBUTOR. REGION 2984, ALTHOUGH NOW AT WEST LIMB, COULD CONTINUE TO PRODUCE X-RAY EVENTS FOR THE NEXT SEVERAL DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD BECAME DISTURBED AT 0530Z TODAY WITH ACTIVE TO MINOR STORM LEVELS OBSERVED THROUGH THE PERIOD. THE GRADUAL ONSET AT 0530Z IS SUSPECTED TO BE LINKED TO A FILAMENT WHICH DISAPPEARED BETWEEN THE 21ST AND 22ND OF MARCH. A SUDDEN COMMENCEMENT OBSERVED AT BOULDER AT 1749Z CORRELATES WELL WITH AN M8/2B FLARE OBSERVED AT 23/0644Z. THE GEOMAGNETIC FIELD SHOULD CONTINUE ACTIVE TO OCCASIONAL MINOR STORM LEVELS THROUGH THE NEXT 12 HOURS, AND THEN GRADUALLY BECOME UNSETTLED. THE POSSIBILITY OF A SLIGHT PARTICLE ENHANCEMENT DURING THE NEXT 4 TO 6 HOURS FROM TODAYS X1 FLARE CANNOT BE DISCOUNTED, BUT THE PEAK PROTON FLUX AT GREATER THAN 10 MEV IS NOT EXPECTED TO GO ABOVE EVENT CRITERIA (10 PARTICLES AT GREATER THAN 10 MEV).

III. EVENT PROBABILITIES: 26 MARCH - 28 MARCH

CLASS M 170/60/50

CLASS X 10/05/05

PROTON 10/05/05

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 25 MARCH 200

PREDICTED 26-28 MARCH 198/195/192

90 DAY MEAN 25 MARCH 196

V. GEOMAGNETIC INDICES

OBSERVED AFR/AP 24 MARCH 04/06

ESTIMATED AFR/AP 25 MARCH 29/25

PREDICTED AFR/AP 26-28 MARCH 15/15 12/12 12/12

SOLTERWARN

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NNNNP