

HFUS 1 BOU 161400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 075A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1200UT 16 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
15/1200UT TO 16/1200UT:

SOLAR ACTIVITY HAS BEEN MODERATE TO LOW DURING THE PAST 24 HOURS. REGION 2971 (N07W64) PRODUCED A SHORT-LIVED M1/1N FLARE WITH MAXIMUM AT 15/1417UT AND A SLOW-RISING M1 BURST (PROBABLY FROM REGION 2973 BEHIND THE SOUTHWEST LIMB) REACHED MAXIMUM AT 1800UT. AFTER THAT, SOLAR ACTIVITY WAS LIMITED TO OCCASIONAL C-CLASS SUBFLARE ACTIVITY. REGION 2971 STILL CONTAINS A MAGNETIC DELTA CONFIGURATION, BUT THE SPOT POLARITIES NOW HAVE A SIMPLER CONVENTIONAL BIPOLAR ARRANGEMENT. REGIONS 2975 (S05W21) AND 2985 (S16W32) HAVE BEEN BRIGHT IN H-ALPHA AND HAVE SHOWN SOME SPOT GROWTH, BUT BOTH HAVE SPREAD IN LONGITUDINAL EXTENT AND ARE MATURE GROUPS WITH REDUCED FLARE POTENTIAL. A STRONG SPRAY WAS OBSERVED NEAR SW13 BETWEEN 0214 AND 0312 UT. MATERIAL WAS EJECTED TO 1.3R. X-RAY LEVELS WERE UNAFFECTED. THIS IS APPARENTLY THE LAST WE WILL SEE OF REGION 2973. OTHER REGIONS ON THE VISIBLE DISK ARE CURRENTLY QUIET.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO DECLINE SLOWLY DURING THE NEXT 72 HOURS. DESPITE THE DELTA IN REGION 2971, IT DOESN'T SEEM CAPABLE OF MORE THAN AN ISOLATED SMALL M-CLASS EVENT AND EVEN THAT THREAT IS DIMINISHING. OTHER REGIONS DON'T APPEAR TO HAVE THE CAPACITY TO PRODUCE EVEN SMALL M-CLASS FLARES. THE 1-8 ANGSTROM X-RAY BACKGROUND LEVEL IS DECLINING.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS MILDLY ACTIVE DURING THE PAST 24 HOURS. THE FIELD IS EXPECTED TO BE MILDLY UNSETTLED TO QUIET DURING THE NEXT 72 HOURS.

III. EVENT PROBABILITIES: 17 - 19 MAR

CLASS M .35/25/15

CLASS X .02/01/01

PROTON .01/01/01

PCAF GREEN

IV. OTTAWA/10.7 FLUX

OBSERVED 15 MAR 212

ESTIMATED 16 MAR 195

PREDICTED 17-19 MAR 195/193/185

90 DAY MEAN 15 MAR 203

V. GEOMAGNETIC A INDICES

OBSERVED AFR 14 MAR 33 AP 15 MAR 17

ESTIMATED AFR 15 MAR 16 AFR/AP 16 MAR 09/15

PREDICTED AFR/AP 17-19 MAR 08/08 07/07 07/07

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HFUS 3 BOU 162200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 075B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200UT 16 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 16/1200UT  
TO 16/2200UT:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THE LAST 24 HOURS. NO  
SIGNIFICANT ACTIVITY HAS OCCURRED SINCE THE PRIMARY FORECAST  
AT 16/1200Z. A NEW REGION 2990 (N19E65) MOVED ONTO THE DISK.  
IT APPEARS AS AN H CLASS ALPHA SPOT.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO CONTINUE <sup>IN</sup> IS DECLINE. REGION  
2971 APPEARS SIMPLIFIED. A POSSIBLE SMALL DELTA EXISTS IN REGION  
2984 (N09E37). OTHER REGIONS APPEAR LESS SIGNIFICANT. OVERALL  
PROBABILITY OF ENERGETIC EVENTS APPEARS SLIGHT.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED IN RECENT HOURS. MAGNETIC  
ACTIVITY SHOULD DIMINISH TO LOW LEVELS FOR MOST OF THE 72 HOUR  
FORECAST PERIOD.

III. EVENT PROBABILITIES 17-19 MAR

CLASS M 35/25/15

CLASS X 02/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 16 MAR 189

PREDICTED 17-19 MAR 180/175/170

90-DAY MEAN 16 MAR 202

V. GEOMAGNETIC INDICES

OBSERVED AFR/AP 15 MAR 19/17

ESTIMATED AFR/AP 16 MAR 12/12

PREDICTED AFR/AP 17-19 MAR 08/08 - 07/07 - 07/07

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