

HEUS 1 BOU 181400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDE NUMBER 077 A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1200UT 18 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
17/1200UT TO 18/1200UT:

SOLAR ACTIVITY HAS BEEN GENERALLY LOW DURING THE LAST 24 HOURS.
ACTIVITY WAS CONFINED TO HALF A DOZEN C-CLASS SUBFLARES (NO
LARGER THAN C3) UNTIL AN IMPULSIVE M1 OCCURRED WITH MAXIMUM AT
18/0951 UT. THERE WERE NO OPTICAL REPORTS ASSOCIATED WITH THIS
X-RAY EVENT. ATTENTION HAS SHIFTED TO REGION 2984 (N09E20)
WHICH CONTAINS A DELTA CONFIGURATION AND IS GROWING. THIS REGION
WAS RESPONSIBLE FOR MOST OF THE SUBFLARE ACTIVITY DURING THE
PAST 24 HOURS. REGION 2990 (N20E50) CONTINUES TO GROW AND IS A
PROVEN X-RAY PRODUCER. REGION 2991 AND 2992 (N12E62 AND S23E26
RESPECTIVELY) ARE GROWING AND CONTAIN EMERGING FIELDS BUT ARE
NOT PRESENTLY FLARING. REGION 2978 (N12W38), WHICH WAS RESTRICTED
YESTERDAY, IS GROWING IN WHITE LIGHT BUT HAS EVIDENTLY
WEAKENED MAGNETICALLY. OTHER REGIONS ARE CLEARLY DECLINING.
ANOTHER REGION IS APPARENTLY READY TO ENTER THE DISK AT NE 16.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO INCREASE SLOWLY TO MODERATE LEVELS.
THE REGIONS IN THE NORTHEAST QUADRANT OF THE DISK ARE EXPECTED
TO PRODUCE OCCASIONAL MODERATELY ENERGETIC FLARES OVER THE NEXT
THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS ACTIVE DURING THE PAST 24 HOURS. THE
FIELD IS EXPECTED TO BE UNSETTLED FOR THE NEXT 48 HOURS WITH
LEVELS OF ACTIVITY GRADUALLY DECLINING.

III. EVENT PROBABILITIES: 19 - 21 MARCH 1981

CLASS M 30/40/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 17 MAR 176

ESTIMATED 18 MAR 171

PREDICTED 19-21 MAR 172/175/181

90 DAY MEAN 17 MAR 201

V. GEOMAGNETIC A. INDICES

OBSERVED AFR 16 MAR 16 APR 17 MAR 15

ESTIMATED AFR 17 MAR 15 AFR/AP 18 MAR 18/20

PREDICTED AFR/AP 18-21 MAR 12/15 10/12 07/07

SOLARFLARE

PT

HFUS 3 BOU 182200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 077B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200UT 18 MARCH 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY

FROM 18/1200UT TO 18/2200UT:

SOLAR ACTIVITY HAS BEEN NEAR MODERATE LEVELS WITH AN M1 EVENT OCCURRING AT 2048Z MAX. THIS WAS NOT ASSOCIATED, BUT HAD THE SIGNATURE OF A LIMB EVENT AND FOLLOWED EARLIER C2/SN AT 1837 MAX AND C5/SN AT 1953 MAX EVENTS. BOTH FROM REGION 2993 (N13E 77) NEW ON THE DISK TODAY.

II. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO INCREASE TO MODERATE LEVELS DUE TO REGIONS IN THE NORTHEAST AND DUE TO RETURNING REGIONS FROM PREVIOUSLY ACTIVE LONGITUDES.

III. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE, SHOWING K VALUES OF 3 AND 4. IT IS EXPECTED TO BE UNSETLED AND DECREASING THROUGH THE FORECAST PERIOD.

IV. EVENT PROBABILITIES: 19-21 MARCH

CLASS M 40/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

V. OTTAWA 10.7 FLUX

OBSERVED 18 MAR 174

PREDICTED 19-21 MAR 172/175/181

90 DAY MEAN 18 MAR 200

VI. GEOMAGNETIC INDICES

OBSERVED AFR/AP 17 MAR 18/15

ESTIMATED AFR/AP 18 MAR 16/20

PREDICTED AFR/AP 19-21 MAR 12/15 10/12 07/07

SOLTERWARN

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