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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 085A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 26 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
25/1200UT TO 26/1200UT:

SOLAR ACTIVITY HAS BEEN HIGH SINCE 25/1200UT DUE TO AN X2/2B
FLARE AT 25/2044UT FROM REGION 2984 (N08W88). DUE TO LIMB
PROXIMITY AND THE ABSENCE OF RADIO, NO TERRESTRIAL EFFECTS ARE
EXPECTED. A FEW SUBFLARES HAVE OCCURRED, MOSTLY IN REGIONS 2993
(N13W23), 2990 (N19W53), AND 2999 (S43E15). REGION 2993, AL-
THOUGH PRESENTLY STABLE, MAY STILL HAVE A WEAK DELTA AND HAS
STRENGTHEND ITS 10.7 CM WAVELENGTH OUTPUT. IT STILL POSSESS
POTENTIAL FOR M-CLASS FLARES. REGIONS 2990 AND 2999 HAVE BOTH
GROWN AND BECAME INCREASINGLY ERUPTIVE. GROWTH HAS ALSO BEEN
OBSERVED IN REGION 3001 (S12E55). REGION 2984 IS ACTIVE AS IT
ROTATES OVER THE WEST LIMB. TWO NEW REGIONS APPEARED ON THE
DISK, 3003 (S16E05) AND 3004 (N18E08), AS SIMPLE A-TYPE GROUPS.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE FOR THE FORECAST
PERIOD DUE TO REGION 2993, WHICH IS NOW THE MOST ACTIVE REGION
ON THE DISK.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS AT MINOR STORM LEVELS 25 MAR. THIS
STORM OCCURRED IN TWO WAVES, POSSIBLY FROM TWO DIFFERENT SOURCES,
A FILAMENT WHICH DISAPPEARED BETWEEN THE 21ST AND 22ND OF MARCH
AND AN M8/2B FLARE OBSERVED AT 23/0644UT. THE FIELD IS CURRENTLY
UNSETTLED AND IS EXPECTED TO REMAIN UNSETTLED FOR THE NEXT THREE
DAYS.

III. EVENT PROBABILITIES: 27 MAR - 29 MAR

CLASS M 70/65/50

CLASS X 05/05/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 25 MAR 200

ESTIMATED 26 MAR 198

PREDICTED 27-29 MAR 195/192/188

90 DAY MEAN 25 MAR 196

V. GEOMAGNETIC A INDICES

OBSERVED AFR 24 MAR 04 AP 25 MAR 29

ESTIMATED AFR 25 MAR 33 AFR/AP 26 MAR 13/15

PREDICTED AFR/AP 27-29 MAR 12/12 12/12 09/10

SOLTERWARM

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HFUS 3 BOU 262136

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 225B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200LT 26 MARCH 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

26/1200UT TO 26/2200UT:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 10 HOURS.

REGION 2993 (N14W29) HAS PRODUCED TWO M-CLASS EVENTS: AN M1/SB AT 1445Z MAXIMUM, AND AN M1/SB AT 1817Z MAXIMUM. THE 1445Z EVENT HAD MINOR DISCRETE FREQUENCY RADIO BURSTS ASSOCIATED WITH IT, WHILE THE SECOND EVENT HAD SHORT WAVE FADES TO 15MHZ. REGION 2991 (N10W47) PRODUCED A C5/B FLARE AT 1943Z MAXIMUM. REGION 2984 (N09 WEST LIMB) CONTINUES IMPRESSIVE WITH A SPRAY TO .12 RADII OBSERVED AT 1747Z.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD CONTINUE MODERATE. REGION 2993 APPEARS CAPABLE OF AT LEAST ONE M-CLASS EVENT PER DAY. IF THE SLOW GROWTH IN REGIONS 2991, 2999 (S42E11) AND 3001 (N21E22) CONTINUES, ISOLATED M-CLASS FLARES FROM THESE REGIONS SHOULD BE POSSIBLE.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS AT ACTIVE LEVELS DURING THE PAST 10 HOURS AS THE MINOR STORM CONDITIONS OF THE 25TH GRADUALLY SUBSIDED. ACTIVE CONDITIONS ARE EXPECTED TO CONTINUE THROUGH THE NEXT 24 HOURS INCREASING TOWARDS THE END OF THE PERIOD AS A RESULT OF YESTERDAYS X1/2B FLARE. NO INCREASES IN PARTICLE FLUXES WERE NOTED AT SATELLITE ALTITUDES FOR THIS FLARE. FURTHER INFORMATION RECEIVED ON THIS FLARE INDICATES TERRESTRIAL EFFECTS ARE POSSIBLE. THE FLARE WAS ACCOMPANIED BY RADIO BURSTS THROUGH THE SPECTRUM AND ALSO A TYPE IV SWEEP. AN AMATEUR OBSERVER ALSO REPORTED A WHITE LIGHT "FLASH" AT THE NORTHWEST LIMB OF THE SUN NEAR THE X-RAY MAXIMUM TIME OF 25/2044Z.

III. EVENT PROBABILITIES: 27 MARCH - 29 MARCH

CLASS M 70/65/60

CLASS X 05/05/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 26 MARCH 204

PREDICTED 27-29 MARCH 208/210/210

90 DAY MEAN 26 MARCH 195

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 25 MARCH 37/29

ESTIMATED AFR/AP 26 MARCH 20/20

PREDICTED AFR/AP 27-29 MARCH 18/20 12/12 12/12

SOLTERWARN

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