

HFUS3 BOU 012200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 060

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 01 MAR 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 28/2100 TO 01/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4629 (N03W60) PRODUCED AN ACTIVE FILAMENT THAT PARTIALLY DISAPPEARED FROM N08W54 AT 01/1814Z. THIS FIVE DEGREE PORTION HAD BEEN FADING WITH PLAGE ENHANCEMENTS IRRADICALLY EARLIER. NO NEW REGION WAS ASSIGNED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. NO RETURNING REGION PROVIDES SIGNIFICANT ACTIVITY POTENTIAL.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 28/2100Z TO 01/2100Z: GEOMAGNETIC ACTIVITY WAS AT MINOR STORM-TO-ACTIVE LEVELS. THE MAJOR STORM THAT SUDDENLY STARTED AT 17/2127Z PEAKED WITH BOTH A GLOBAL AND MID-LATITUDE K-INDEX OF SEVEN AT 28/0430Z. IT DECREASED BELOW THE MINOR STORM LEVEL THRESHOLD AT 1/0900Z JUST AFTER A BRIEF SECONDARY DISTURBANCE FROM 1/0600-0900Z. THIS STORM WAS ATTRIBUTED TO A FOUR DEGREE LONG DISAPPEARING FILAMENT FROM N12E28 AT 23/1301ZZ.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE UNSETTLED-TO-ACTIVE THE FIRST TWO DAYS (2-3 MAR). THE THIRD DAY (4 MAR) IS EXPECTED TO BE AT AN INCREASING ACTIVE LEVEL DUE TO THE HIGH-SPEED/LOW DENSITY STREAM FROM A CROSS-EQUATORIAL EXTENSION OF THE SOUTH POLAR CORONAL HOLE CROWN THAT HAD PRODUCED MINOR STORMS FROM THESE CARRINGTON LONGITUDES THE PAST TWO ROTATIONS. THE OUTLOOK IS FOR A RECURRENT ACTIVE-TO-MINOR STORM DISTURBANCE ON 5 MAR WITH DECREASING ACTIVITY DOWN TO PREDOMINATELY ACTIVE LEVELS BY 7 MAR. THE SMALL DISAPPEARING FILAMENT OF TODAY SHOULD ENHANCE THE GEOMAGNETIC ACTIVITY ON 5-6 MAR IF IT IS CAPABLE OF EFFECTING ANY MAGNETOSPHERE DISTURBANCE AT ALL.

III. EVENT PROBABILITIES 02 MAR-04 MAR

CLASS M 01/01/01

CLASS X 01701/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 MAR 071

PREDICTED 02 MAR-04 MAR 071/071/070

90 DAY MEAN 01 MAR 075

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 28 FEB 055/068

ESTIMATED AFR/AP 01 MAR 014/020

PREDICTED AFR/AP 02 MAR-04 MAR 010/015-012/015-019/020

SOLTERWARN

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