

HFUS3 BOU 092200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 040

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 09 FEB 1985

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 08/2100 TO 09/2100Z: SOLAR ACTIVITY HAS BEEN VERY LOW FOR THE PAST 24 HOURS. NO C-CLASS OR LARGER X-RAY EVENTS OCCURRED. A SUBFAINT FLARE WAS REPORTED IN REGION 4624 (N10W15) AT 1543Z. THIS SMALL BIPOLAR REGION IS THE MOST COMPLEX ON THE DISK, WITH STRONG ARCH FILAMENT SYSTEMS AND RAPID GROWTH SINCE YESTERDAY. REGION 4626 (S12E67) IS FULLY ON THE DISK BUT IS AN H-TYPE GROUP WITH ONLY MILD PLAGE FLUCTUATIONS AND BRIGHT POINTS. A NEW REGION MAY BE FORMING NEAR N05E13 WHERE PLAGE AND AN ARCH FILAMENT SYSTEM ARE BEING REPORTED. THE FILAMENT NEAR SPOTLESS REGION 4623 (S06E01) REMAINED ACTIVE THROUGH THE DAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN VERY LOW. NONE OF THE REGIONS PRESENTLY ON THE DISK SHOW ANY OF THE CHARACTERISTICS ASSOCIATED WITH SIGNIFICANT FLARE ACTIVITY. OLD REGION 4618, DUE TO RETURN ON 12 FEBRUARY, WAS NUMBERED AT E41 LAST ROTATION BUT HAD LOST ITS SPOTS BY W41. NO FLARE ACTIVITY OCCURRED THERE.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 08/2100Z TO 09/2100Z: THE GEOMAGNETIC FIELD HAS BEEN MOSTLY ACTIVE FOR THE PAST 24 HOURS, WITH ONE PERIOD AT MINOR STORM LEVELS AT BOTH MIDDLE AND HIGH LATITUDES DURING LOCAL NIGHTTIME. THIS ACTIVITY IS ATTRIBUTED TO THE EFFECTS OF A HIGH SPEED SOLAR WIND STREAM FROM A POSITIVE-POLARITY CORONAL HOLE.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED TO ACTIVE TOMORROW, MOSTLY UNSETTLED ON THE NEXT DAY AND QUIET BY THE END OF THE FORECAST PERIOD. THE INTERPLANETARY MAGNETIC FIELD SECTOR POLARITY IS EXPECTED TO SWITCH FROM POSITIVE TO NEGATIVE BY THE END OF 10 FEBRUARY, MARKING THE END OF THE CORONAL HOLE HIGH-SPEED STREAM AND THE BEGINNING OF GENERAL QUIET CONDITIONS.

III. EVENT PROBABILITIES 10 FEB-12 FEB

CLASS M 05/05/05

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 FEB 075

PREDICTED 10 FEB-12 FEB 078/080/082

90 DAY MEAN 09 FEB 076

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 08 FEB 022/025

ESTIMATED AFR/AP 09 FEB 019/030

PREDICTED AFR/AP 10 FEB-12 FEB 015/020-010/015-005/010

SOLTERWARN

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