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HAUS BOU 310400

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 090A ISSUED 0400Z 31 MAR 1971

CLASS C FLARES ARE EXPECTED DURING THE NEXT 13 HOURS.

A. SOLAR ACTIVITY HAS REMAINED AT A LOW LEVEL DURING THE PAST 11 HOURS, AND ONLY A FEW NON-ENERGETIC EVENTS HAVE BEEN REPORTED.

IN THE ABNORMAL REGION AT S19E03, THE LONGITUDINAL NEUTRAL LINE HAS DEVELOPED TWO MODERATELY SHARP KINKS BETWEEN THE ANTIPOLAR LEADING SPOTS. THESE SPOTS HAVE DRIFTED TOWARD EACH OTHER AND ARE NOW LESS THAN TWO DEGREES APART, RESULTING IN A STRONG MAGNETIC GRADIENT. RECENT OBSERVATIONS INDICATE THAT SPOT DEVELOPMENT IS IN PROGRESS BOTH EAST AND WEST OF THESE TWO LEADING SPOTS AT S19E03, AND SLIGHT DEVELOPMENT IN THE SPOTS AND PLAGE NEAR S13E09 HAS BEEN REPORTED. THE NEW REGION AT N13E31 HAS SHOWN RECENT SPOT GROWTH AND PLAGE DEVELOPMENT, BUT THIS GROUP HAS A SIMPLE BIPOLAR MAGNETIC CONFIGURATION. OTHER REGIONS ON THE SOLAR DISK ARE UNIMPRESSIVE. THE GEOMAGNETIC FIELD REMAINED QUIET UNTIL ABOUT 31/0220Z, WHEN SOME MINOR DISTURBANCE BEGAN.

B. DURING THE THREE-DAY FORECAST PERIOD, SOLAR ACTIVITY IS EXPECTED TO CONSIST PRIMARILY OF NON-ENERGETIC SUBFLARES FROM THE VARIOUS REGIONS ON THE DISK. THE RECENT DEVELOPMENT OF A STRONG MAGNETIC GRADIENT BETWEEN THE ANTIPOLAR LEADING SPOTS AT S19E03 INDICATES THAT ONE OR TWO CLASS M FLARES MAY BE PRODUCED AT THAT SITE WITHIN THE NEXT 24 TO 48 HOURS. UNSETTLED GEOMAGNETIC CONDITIONS ARE LIKELY DURING THE NEXT 13 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 30 MAR/0400Z ENDING 02 APR/0400Z.

CLASS M OR GREATER 45/40/30

CLASS X 05/05/02

PROTON EVENTS 01/01/01

D. OTTAWA 10.7 CM FLUXES FOR 30/1700Z AND 30/2000Z WERE 101 AND 100 RESPECTIVELY.

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HAUS BOU 311700

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 90B ISSUED 1700Z 31 MAR 1971

A CLASS M EVENT IS EXPECTED IN THE NEXT 11 HOURS.

A. A SHORT-LIVED CLASS M2 EVENT WAS RECORDED AT 31/0835Z WITH NO REPORTED OPTICAL COUNTERPART. THERE IS CONTINUED GROWTH OF THE APPARENT FIELD GRADIENTS ACROSS THE E-W NEUTRAL LINE IN THE LEADER AT S18W04. AN INCREASED RATE OF CHROMOSPHERIC ACTIVITY REFLECTS THE GROWTH AND REPORTED N-S ARCH-FILAMENT STRUCTURE WOULD INDICATE FURTHER TIGHTENING OF THE GRADIENTS. IN WHITE LIGHT, THE LARGE PENUMBRAE HAVE MOVED INTO CLOSER PROXIMITY AND SMALL SPOTS HAVE EXTENDED IN CHAINS ALONG THE NEUTRAL LINE. ELSEWHERE, THE CENTER AT S12E03 IS SIMPLIFYING AND THE NEWER REGION AT N13E24 HAS PEAKED ITS GROWTH RATE AND REMAINS NOMINAL BIPOLAR. OVERALL, 10.7 RADIATION FROM THE DISK IS THE LOWEST OF THE PAST 12 MONTHS AND 1-8 ANGSTROM X-RAY FLUX IS BELOW INSTRUMENTATION THRESHOLDS. A GEOMAGNETIC DISTURBANCE BEGAN ABOUT 31/0220Z K FREDICKSBURG REACHED 5 FROM 31/0300Z TO 31/0600Z.

B. CLASS M EVENTS ARE EXPECTED FROM THE S18W04 REGION. THE GEOMAGNETIC DISTURBANCE IS EXPECTED TO HAVE ANOTHER PEAK SOMETIME DURING 01 APRIL.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 31 MAR/1700Z ENDING 03 APR/1700Z.

CLASS M OR GREATER 50/50/45

CLASS X 10/10/10

PROTON EVENTS 05/10/10

D. OTTAWA 10.7 CM FLUX FOR 31/1700Z WAS 101. PREDICTED 10.7 CM FLUX FOR 01-03 APR IS 102/105/108.

E. MAGNETIC A-FREDERICKSBURG FOR 30 MAR WAS 09. FOR 31 ABOUT 20 PREDICTED AP FOR 01-03, 18/12/08.

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