

KBOU

HAUS BOU 140500

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 134A ISSUED 0500Z 14 MAY 1971

ENERGETIC FLARE ACTIVITY IS LIKELY DURING THE NEXT 24 HOURS.

A. SOLAR ACTIVITY HAS REMAINED AT A LOW LEVEL DURING THE PAST SEVEN HOURS, AND ONLY A FEW CLASS C EVENTS HAVE BEEN REPORTED.

THE DYNAMIC ACTIVE CENTER AT N12W90 NOW IS PASSING OVER THE WEST LIMB, AND FURTHER OPTICAL EVALUATION IS NO LONGER POSSIBLE. PROTON COUNTING RATES ON THE ATS-1 SATELLITE HAVE SHOWN NO SIGNIFICANT ENHANCEMENT SINCE THE CLASS M7 LIMB EVENT THAT BEGAN AT 13/1751Z. THE D/190 REGION AT N06E44 HAS EXHIBITED RECENT POINT BRIGHTENINGS BUT HAS NOT SHOWN MUCH RECENT DEVELOPMENT. A NEW REGION CONTAINING A SMALL PLAGE WITH ARCH FILAMENTS IS GROWING AT N10W42. THE GEOMAGNETIC FIELD BECAME SLIGHTLY DISTURBED AT ABOUT 14/0300Z, AND UNSETTLED CONDITIONS ARE PRESENTLY BEING RECORDED.

B. DURING THE NEXT 24 TO 36 HOURS, THE PROBABILITY OF ENERGETIC FLARE ACTIVITY WILL REMAIN RELATIVELY HIGH UNTIL THE REGION AT NW12 HAS PASSED BEHIND THE WEST LIMB. NO SIGNIFICANT POLAR CAP ABSORPTION IS EXPECTED AS A RESULT OF THE FLARE AT 13/1751Z, BUT AN ENHANCEMENT OF SATELLITE LEVEL PARTICLE COUNTING RATES COULD STILL OCCUR. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN IN AN UNSETTLED CONDITION DURING THE NEXT 12-24 HOURS, AND NO SIGNIFICANT MAGNETIC STORM IS EXPECTED TO RESULT FROM THE FLARE AT 13/1751Z.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 14 MAY/0000Z ENDING 16 MAY/2400Z.

CLASS M OR GREATER 85/60/40

CLASS X 25/10/02

PROTON EVENTS 40/10/02

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HAUS BOU 142200

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 134B ISSUED 2200Z 14 MAY 1971

CLASS M FLARES ARE PROBABLE IN THE NEXT 24 HOURS.

A. A 2B/1B FLARE BEGAN AT 14/1411Z, CLASS M9, LOCATION N05E10. THIS EVENT HAD A RADIO BURST THAT PEAKED AT 1415MHZ WITH 3600 FLUX UNITS AND DROPPED OFF RAPIDLY AT HIGHER AND LOWER FREQUENCIES. A SMALL ENHANCEMENT OF 20-70 MEV PROTONS WAS DETECTED ON ATS-1 SATELLITE AT 14/1900Z. THIS SAME REGION PRODUCED A CLASS M2 SN FLARE AT 14/0810Z. THE N04E06 REGION RESPONSIBLE FOR THIS ACTIVITY IS A BIPOLAR WITH REVERSED POLARITIES WITH SPOT AREA ABOUT 15 MILLIONTHS. OBSERVATORY REPORTS INDICATED SOME RAPID DEVELOPMENTS IN THE MAGNETIC STRUCTURE JUST PRIOR TO THE 1411Z EVENT. THIS FLARE ACTIVITY WAS PECULIAR BECAUSE OF THE SIZE AND SIMPLICITY OF THE REGION. AT APPROXIMATELY 14/1750Z A SMALL X-RAY BURST GAVE MINOR IONOSPHERIC DISTURBANCES. AT 14/1821Z A RADIO BURST BEGAN AND HAD A PROFILE SIMILAR TO THE 1411Z BURST WITH A PEAK OF 620 FLUX UNITS AT 1415MHZ. ALTHOUGH NO ASSOCIATED OPTICAL REPORT CONFIRMED THE X-RAY AND RADIO DATA IT IS BELIEVED THAT THE RESPONSIBLE EVENT ORIGINATED BEYOND THE WEST LIMB. THE GEOMAGNETIC FIELD BECAME UNSETTLED AT 0300Z.

B. SOLAR ACTIVITY IS EXPECTED TO BE CONFINED TO THE N04E06 AND N05E32 REGIONS. OCCASIONAL ENERGETIC EVENTS ARE CERTAINLY A STRONG POSSIBILITY. THE GEOMAGNETIC FIELD SHOULD REMAIN UNSETTLED THE NEXT THREE DAYS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING ¹⁴ MAY/0000Z ENDING ¹⁶ MAY/2400Z.

CLASS M OR GREATER 60/60/60

17

CLASS X 10/10/10

PROTON EVENTS 10/10/10

D. OTTAWA 10.7CM FLUXES FOR 14/1400, 1700, AND 2000Z WERE 120, 120, AND 118 RESPECTIVELY. PREDICTED 10.7CM FLUX FOR 15-17 MAY IS 118/116/116.

E. MAGNETIC A-FREDERICKSBURG FOR 13 MAY WAS 04. FOR 14 MAY ABOUT 15. PREDICTED AP FOR 15-17 MAY IS 12/15/12.

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