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HFUS BOU 212200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 355 ISSUED 2200Z 21 DEC 1971

CLASS M FLARES ARE PROBABLE

A. ONLY CLASS C EVENTS HAVE OCCURRED DURING THE PAST 24 HOURS. INTEREST IS CENTERED ON THE ABNORMALLY STRUCTURED REGION 391 /S15E28/. THE REGION HAS PRODUCED ONLY NON-ENERGETIC SUBFLARES. HOWEVER, ADDITIONAL SUNSPOT STRUCTURE HAS EMERGED ON BOTH THE EAST AND WEST SIDES OF THE MAIN PENUMBRA, INCREASING THE MAGNETIC GAMMA STRUCTURE FOR THIS REGION. THE 8.6MM TEMPERATURE FOR THIS REGION HAS INCREASED FROM 447 TO 1122 DEG KEL /ABOVE BACKGROUND/ DURING THE PAST 24 HOURS. THE PLAGE CURRENTLY IS DOMINATED BY HARDENED, ENHANCED RIBBON FORMS ALONG THE NEUTRAL LINE. THE GEOMAGNETIC FIELD HAS BEEN QUIET.

B. ALL PARAMETERS INDICATE THAT REGION 391 IS APPROACHING A CONDITION OF EVOLUTION SUCH THAT A SEQUENCE OF ENERGETIC EVENTS CAN BE EXPECTED. GEOMAGNETICALLY, HIGH LATITUDE STATIONS HAVE BECOME DISTURBED DURING THE PAST 9 HOURS AND LOW LATITUDE DURING THE PAST 3 HOURS. A MODERATE SECTOR BOUNDARY IS STILL EXPECTED TO SWEEP BY EARTH.

C. EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 22 DEC/0000Z ENDING 24 DEC/2400Z.

CLASS M OR GREATER 75/80/80

CLASS X 15/10/10

PROTON EVENT 10/15/15

D. OTTAWA 10.7CM FLUXES FOR 21/1400Z 1700Z AND 2000Z WERE 144, 140 AND 143. PREDICTED 10.7CM FLUXES FOR 22-24 DEC ARE 145/147/148.

E. MAGNETIC A-FREDERICKSBURG FOR 20 DEC WAS 02. FOR 21 DEC ABOUT 04. PREDICTED AP FOR 22-24 DEC ARE 20/13/10.

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