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HFUS BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 354 ISSUED 2200Z 20 DECEMBER 1971

CLASS M FLARES ARE PROBABLE

A. THERE ARE NINE REGIONS WITH SUNSPOT STRUCTURE ASSOCIATED WITH THEM. OF THESE, REGION 391 /S17E41/ IS MOST SIGNIFICANT. THIS REGION HAS BEEN CLASSIFIED GAMMA MAGNETICALLY BY MT. WILSON. MODERATE GRADIENTS EXIST ACROSS THE MIXED POLARITY PORTION OF THE SUNSPOT WITH SLIGHT INCREASE IN UMBRAL STRENGTHS DURING THE PAST 12 HOURS. THE PLAGE OF REGION 391 IS INTERCONNECTED WITH THE PLAGE OF REGION 393 /S10E53/. THIS LATTER REGION CONTAINS AN EMERGING BIPOLE. REGION 388 /S15E26/ IS A LARGE SIMPLE BIPOLE BUT MAY ACT SYMPATHETICALLY WITH FLARE ACTIVITY IN REGIONS 391 AND 393. THE GEOMAGNETIC FIELD HAS BEEN QUIET.

B. FLARE PROBABILITIES ARE INCREASED SLIGHTLY DUE TO SLOW GROWTH PATTERN IN REGIONS 391 AND 393. A MODERATELY STRONG SECTOR BOUNDARY IS EXPECTED WITHIN THE NEXT 12 HOURS. THE GEOMAGNETIC FIELD IS EXPECTED TO BE ACTIVE FOR APPROXIMATELY 48 HOURS WITH THE FIRST 24 HOURS APPROACHING MINOR STORM CONDITIONS.

C. EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 21 DEC/0000Z ENDING 23 DEC/2400Z.

CLASS M OR GREATER 70/75/75

CLASS X 10/10/10

PROTON EVENT 05/10/15

D. OTTAWA 10.7 CM FLUXES FOR 20/1400Z, 1700Z AND 2000Z WERE 139, 139 AND 138. PREDICTED 10.7 CM FLUXES FOR 21-23 DEC ARE 140/141/143.

E. MAGNETIC A-FREDERICKSBURG FOR 19 DEC WAS 10. FOR 20 DEC ABOUT 02. PREDICTED AP FOR 21-23 DEC ARE 24/15/15.

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