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HFUS BOU 202235

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 020 ISSUED 2200Z 20 JAN 1972

FREQUENT SUBFLARES WITH ISOLATED CLASS M FLARES EXPECTED.

A. SOLAR FLARES DURING THE PAST 24 HOURS HAVE BEEN NUMEROUS BUT MINOR AND HAVE ALL OCCURRED IN REGION 015 /S15W05/. MINOR X-RAY EMISSION ACCOMPANIED FLARES AT 20/0320 /SB, C3/, 0811 /1N, C5/ AND 0912 U.T. /SN, C8/. ALTHOUGH THE SPOT GROUP OF 015 HAS DECREASED SLIGHTLY IN AREA, IT REMAINS MAGNETICALLY COMPLEX WITH A DLTA CONFIGURATION AND REVERSED POLARITIES. A NEW REGION /020, S16W22/ HAS FORMED AT THE SAME LONGITUDE AS OLD 014. ITS POSITION AND ANOMGLOUS N-S ORIENTATION MAY IMPLY FUTURE SIGNIFICNCE. REGION 017 /N15W16/ HAS TRIPLED IN SPOT AREA SINCE YESTERDAY AND HAS A STRONG ARCH FILAMENT SYSTEM BUT REMAINS A SIMPLE BIPOLE. A PROTON EVENT BEGAN ABOUT 20/0500 UT WITH THE LOW ENERGY /5-21 MEV ON ATS-1/ PARTICLE COUNT INCREASING TO 1000 PARTICLES/CM2 SEC BY 1600 UT. THE 20-70 MEV PARTICLE FLUX INCREASED VERY SLOWLY TO 3 PARTICLES/CM2 SEC /BACKGROUND 0.5/. COUNTS WERE STILL SLOWLY INCREASING WHEN MONITORING ENDED AT 1723 UT. ACTIVITY IN 015 IS BELIEVED TO BE THE SOURCE OF THE PARTICLES WITH THE 1N FLARE AT 190625 UT A LIKELY ACCELERATING EVENT. HOWEVER, IT IS POSSIBLE THAT OTHER EVENTS IN THE 014/015 COMPLEX HAVE CONTRIBUTED TO THE TOTAL MEASURED INTERPLANETARY FLUX. THE GEOMAGNETIC FIELD IS QUIET.

B. FREQUENT SUBFLARES WITH ONE OR TWO CLASS M EVENTS PER DAY ARE EXPECTED FROM REGION 015. OCCASIONAL MINOR FLARES MAY BE PRODUCED BY 017 AND 020. THE PROTON EVENT IS EXPECTED TO PERSIST WITH GRADUALLY DEMINISHING FLUX DURING THE NEXT 24 HOURS. THE GEOMAGNETIC FIELD IS EXPECTED TO BECOME ACTIVE AT ABOUT 21/0600 UT.

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

CLASS M OR GREATER 85/85/70

CLASS X 15/15/10

PROTON EVENT 30/20/10

D. OTTAWA 10.7 CM FLUXES FOR 20/1400Z, 1700Z AND 2000Z WERE 130, 127 AND 129. PREDICTED 10.7 CM FLUXES FOR 21-23 JAN ARE 132/134/130.

E. MAGNETIC A-FREDERICKSBURG FOR 19 JAN WAS 10. FOR 20 JAN ABOUT 08. PREDICTED AP FOR 21-23 JAN ARE 18/24/15.

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