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HFUS BOU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 364 ISSUED 2200Z 30 DECEMBER 1971

NO ENERGETIC ACTIVITY IS EXPECTED.

A. A 15 MINUTE FLARE OF IMPORTANCE 1B OCCURRED YESTERDAY ABOUT 30 MINUTES AFTER SUNSET IN BOULDER. AS REPORTED BY CARNARVON THIS NON-ENERGETIC EVENT BEGAN AT 29/2310Z FROM A SPOT GROUP LESS THAN A DAY OLD WITH A SMALL, DULL PLAGE AND AN AREA OF THE ORDER OF 10 MILLIONTHS OF THE HEMISPHERE. THE ACCOMPANYING CM WAVELENGTH RADIO BURST WAS OBSERVED BY CARNARVON, MANILA, AND HIRASO, YIELDING A 7-POINT PEAK FLUX DENSITY VS FREQUENCY CURVE. THE RESULTING SPECTRAL SIGNATURE WAS U-SHAPED, AND AT 2700 MHZ, THE PEAK VALUE WAS A MODEST 270 UNITS ABOVE BACKGROUND /MANILA DATA/. CULGOORA REPORTED A STRONG GROUP OF TYPE III'S FOLLOWED BY STRONG TYPE II BETWEEN 15 AND 400 MHZ AND 30 TO 300 MHZ RESPECTIVELY. UNFORTUNATELY IT WAS TOO EARLY IN THE DAY FOR OBSERVATIONS TO BE MADE WITH THE RADIOHELIOGRAPH. SOMETIME BEFORE 30/0400Z PROTONS WERE DETECTED BY AEROSPACE'S EXPERIMENT ON BOARD ATS-1. PARTICLE FLUXES RECORDED AS THE SATELLITE WAS COMMANDED ON TURNED OUT TO BE THE HIGHEST OBSERVED, I.E. ABOUT AN ORDER OF MAGNITUDE ABOVE BACKGROUND ON BOTH CHANNELS. THESE COUNTING RATES HAVE BEEN MONOTONICALLY DECLINING SINCE. ACTIVITY PRIOR TO AND AFTER THE 1B FLARE HAS CONSISTED OF INFREQUENT SUB-FLARES SCATTERED ACROSS THE DISK. TODAY ONE NEW REGION HAS APPEARED NEAR S17E62 /405/, WHILE 403 WHICH GAVE RISE TO THE EVENT DESCRIBED ABOVE HAS EITHER DECAYED OR ROTATED FROM VIEW. OUT OF SIX DISK FEATURES THAT ARE CURRENTLY VISIBLE NO ONE GROUP COVERS MORE THAN 150 MILLIONTHS OF THE HEMISPHERE. MOREOVER, ALL HYDROGEN PLAGES ARE SMALL AND DULL IN APPEARANCE. UNSETTLED CONDITIONS EXISTED DURING THE PAST 24 HOURS GEOMAGNETICALLY. AFR FOR 29 DEC WAS 14, IMPLYING K-VALUES AS LARGE AS 4. AS THIS MESSAGE IS BEING WRITTEN FLUCTUATIONS ON THE H AND D TRACES ARE NO LARGER THAN K EQUAL 2.

B. THE 29/2310Z EVENT WAS APPARENTLY AN ISOLATED ONE. NO RISE IN OVERALL DISK ACTIVITY IS THEREFORE EXPECTED. A QUIET GEOMAGNETIC FIELD IS ANTICIPATED TOMORROW, BUT LATE THE FOLLOWING DAY K-INDICES EQUAL TO 3 OR 4 ARE ANTICIPATED.

C. EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 31 DEC/0000Z ENDING 02 JAN/2400Z.

CLASS M OR GREATER 25/35/20

CLASS X 02/02/02

PROTON EVENT 02/02/02

D. OTTAWA 10.7CM FLUXES FOR 30 DEC/1400Z 1700Z AND 2000Z WERE 116, 116 AND 113. PREDICTED 10.7CM FLUXES FOR 31 DEC-02 JAN ARE 114/117/113.

E. MAGNETIC A-FREDERICKSBURG FOR 29 DEC WAS 14. FOR 30 ABOUT 13. PREDICTED AP FOR 31 DEC-02 JAN ARE 07/07/02.

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