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HFUS BOU 132200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 044 ISSUED 2200Z 13 FEB 1972

REGION 051 WILL VERY LIKELY PRODUCE A SMALL M FLARE WITHIN THE NEXT 24 HOURS.

A. REGION 051-A BIPOLAR FEATURE NEAR S16E36 - HAS BEEN THE SOURCE OF TWO ENERGETIC FLARES TODAY AT 0826 AND BEFORE 0930Z. THE FIRST OF THESE WAS AN M3 /1B/ EVENT OF 32 MINUTE DURATION JUST EAST OF 051S BULLSEYE - SHAPED LEADER; THE SECOND WAS AN M2 FLARE /SN/. SWFS UP TO 18 MHZ, TYPE III BETWEEN 24 AND 48 MHZ, AND A DECIMETER/CENTIMETER WAVELENGTH BURST OF POSITIVE SLOPE WITH INCREASING FREQUENCY ACCOMPANIED THE M3 ERUPTION. AT 10CM THE PEAK FLUX DENSITY WAS SOMEWHERE BETWEEN 750 AND 950 UNITS ABOVE BACKGROUND. THE 0930Z EVENT PRODUCED LITTLE OR NO EFFECTS IONOSPHERICALLY AND OF THE ORDER OF 10 FLUX UNITS RADIOMETRICALLY. POSSIBLY 9 GROUPS ARE VISIBLE ACROSS THE DISK. THE MOST RECENT ADDITIONS HAVE BEEN A SIMPLE STRUCTURE JUST INSIDE THE SE LIMB AND A NUMBER OF PORE-LIKE SPOTS TO THE NW OF REGION 051. IF THE LATTER IS INDEED A SEPERATE GROUP, THEN ITS POLARITIES ARE REVERSED. IMPORTANCE ONE SURGES ARE IN EVIDENCE ALONG THE SE LIMB NEAR S10. REPORTS IMPLY THAT THE SURGING HAS BEEN ALMOST CONTINUOUS SINCE 13/0600Z. TWOS AND THREES HAVE CHARACTERIZED THE GEOMAGNETIC FIELD AT BOULDER AND FREDERICKSBURG MAGNETIC LATITUDES.

B. AN INTRIGUING SITUATION MAY BE DEVELOPING MAGNETICALLY NEAR REGION 051 AS A RESULT OF THE SATELLITE SPOTS THAT HAVE RECENTLY APPEARED. THIS GROUP IS CONSIDERED A PRIME CANDIDATE FOR A SMALL M FLARE SOMETIME DURING EACH OF THE NEXT TWO DAYS. IN ADDITION THE 14TH AND 15TH SHOULD MARK THE PASSAGE OF A WEAK RECURRENT DISTURBANCE IN THE GEOMAGNETIC FIELD.

C. EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 14 FEB/0000Z ENDING 16 FEB/2400Z.

CLASS M OR GREATER 80/60/50

CLASS X 05/05/05

PROTON EVENT 08/10/15

D. OTTAWA 10.7 CM FLUXES FOR 13/1400Z 1700Z AND 2000Z WERE 129, 130 AND 128. PREDICTED 10.7 CM FLUXES FOR 14-16 FEB ARE 128/126/123.

E. MAGNETIC A-FREDERICKSBURG FOR 12 FEB WAS 05. FOR 13 FEB ABOUT 09. PREDICTED AP FOR 14-16 FEB ARE 13/16/09.

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