

KBOU

HFUS BOU 210500

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 233A ISSUED 0500Z 21 AUGUST 1971

A CLASS M FLARE IS LIKELY DURING THE NEXT 24 HOURS.

A. DURING THE PAST SEVEN HOURS, SOLAR ACTIVITY HAS DECREASED SLIGHTLY, AND ONLY A FEW CLASS C EVENTS HAVE BEEN REPORTED. REGION 235 (S12E36) REMAINS IMPRESSIVE AND DYNAMIC. SUBFLARES, BRIGHTENINGS, AND SEVERAL DARK SURGES HAVE BEEN OBSERVED WEST OF THE MAIN LEADER, AND SOME ACTIVITY ALSO HAS OCCURRED ALONG THE KINKY NEUTRAL LINE. DEKAMETRIC CONTINUUM, TYPE-1, AND TYPE-3 RADIO BURSTS HAVE BEEN OBSERVED IN ASSOCIATION WITH REGION 235. OTHER REGIONS PRESENTLY ARE RELATIVELY UNIMPRESSIVE. THE GEOMAGNETIC FIELD HAS REMAINED QUIET DURING THE PAST 24 HOURS.

B. DURING THE NEXT THREE DAYS, REGION 235 PROBABLY WILL PRODUCE NUMEROUS CLASS C EVENTS, SEVERAL SMALL CLASS M FLARES, AND PERHAPS ONE CLASS X FLARE. ONLY CLASS C EVENTS ARE EXPECTED FROM OTHER REGIONS. THE GEOMAGNETIC FIELD PROBABLY WILL BE GENERALLY QUIET WITH OCCASIONAL PERIODS OF UNSETLED CONDITIONS DURING THE NEXT 72 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 21 AUG/0000Z ENDING 23 AUG/2400Z

CLASS M OR GREATER 85/85/90

CLASS X 15/15/15

PROTON EVENTS 05/05/08

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FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 233B ISSUED 2200Z 21 AUGUST 1971

CLASS M FLARES ARE EXPECTED DURING THE NEXT 24 HOURS.

A. REGION 235 (S12E25) HAS PRODUCED FREQUENT FLARES--MOST OF THEM RELATIVELY STRONGER AT RADIO FREQUENCIES THAN AT X-RAY WAVE LENGTHS. GROUPS OF TYPE THREE DEKAMETRIC BURSTS HAVE ACCOMPANIED THE FLARES. ALL THE EVENTS HAVE BEEN IMPULSIVE AND SHORTLIVED. THE MOST ENERGETIC WAS A SUB-BRIGHT FLARE AT S11E22 CLASSED AS M4. THE TEN CENTIMETER RADIO BURST WAS 325 F.U. OVER BACKGROUND BUT LASTED LESS THAN TEN MINUTES. THE FLARE OCCURRED IN A SMALL AREA OF MAGNETIC COMPLEXITY ON THE NORTH AND WEST SIDE OF THE LEADER SPOT. FREQUENT LARGE DARK SURGES ORIGINATING IN THE SAME AREA TENDS TO CONFIRM THE EXISTENCE OF AN ISOLATED POLE THERE. THE PLAGE AREA HAS GROWN EXTENSIVELY AROUND THE LEADER IN THE PAST 24 HOURS. INTERFEROMETRIC RADIO MEASUREMENTS INDICATE THE CORONAL TEMPERATURES HAVE STABILIZED THE PAST 24-48 HOURS. SATELLITE MEASUREMENTS INDICATE A SLOW RISE IN INTER-PLANETARY LOW ENERGY PROTON COUNTING RATES TO ABOUT TWICE BACKGROUND FOR 1 MEV PARTICLES. THE RISE BEGAN BETWEEN 21/0800Z AND 21/0900Z AND PROBABLY IS NOT RELATED TO ANY DISCRETE FLARES. THE GEOMAGNETIC FIELD HAS BEEN UNSETLED.

B. THE EXPECTED MAXIMUM SIZE OF EVENTS FROM REGION 235 SHOULD BE LARGER IN THE NEXT 24 HOURS WITH THE LARGEST RANGING TO AROUND SMALL CLASS X INTENSITY. THE GEOMAGNETIC FIELD SHOULD DISPLAY PERIODS OF UNSETTLEMENT.

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

CLASS M OR GREATER 90/92/95

CLASS X 20/25/25

PROTON EVENTS 25/25/30

D. OTTAWA 10.7 CM FLUXES FOR 21/1400Z, 21/1700Z AND 21/2000Z WERE 148, 147 AND 146, RESPECTIVELY.

PREDICTED 10.7 CM FLUX FOR 22-24 AUG IS 145/145/145.

E. MAGNETIC A-FREDERICKSBURG FOR AUG 20 WAS 02. FOR AUG 21 ABOUT 06. PREDICTED AP FOR 22-24 AUG, 07/07/07.

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