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HFUS BOU 240500

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 205A ISSUED 0500Z 24 JULY 1971

CLASS C ACTIVITY IS EXPECTED DURING THE NEXT 24 HOURS.

A. SOLAR ACTIVITY HAS BEEN AT A LOW LEVEL DURING THE PAST 24 HOURS. REGION 176 (N13W35) HAS BEEN FLUCTUATING IN BRIGHTNESS AND REGION 194 (N10E10) WHICH DEVELOPED DURING THE PAST 10754928, & 4-08\$)6. THE OTHER DISK REGIONS APPEAR STABLE. THE GEOMAGNETIC FIELD HAS BEEN QUIET.

B. SOLAR ACTIVITY IS EXPECTED TO INCREASE TO MODERATE LEVEL. REGION 176 (N13W35) AND 194 (N10E10) ARE THE REGIONS MOST LIKELY TO PRODUCE FLARE ACTIVITY. THE GEOMAGNETIC FIELD WILL HAVE MINOR DISTURBANCE STARTING 25 JULY.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 24 JULY/0000Z ENDING 26 JULY/2400Z  
CLASS M OR GREATER 40/30/30

CLASS X 01/02/05

PROTON EVENTS 05/05/05

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FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO  
SDF NUMBER 205B ISSUED 2200Z 24 JULY 1971

ONE OR TWO CLASS M FLARES ARE EXPECTED DURING THE NEXT 24 HOURS.

A. SOLAR ACTIVITY HAS INCREASED CONSIDERABLY DURING THE PAST 17 HOURS. REGION 176, N13W47, WHICH CONTAINED A DELTA CONFIGURATION IN ITS CENTRAL SECTION YESTERDAY, PRODUCED AN IMPORTANCE ONE-BRILLIANT CLASS M7 FLARE AT 24/1030Z. RADIO BURSTS ACCOMPANYING THE 1B FLARE MEASURED 186, 134, AND 367 FLUX UNITS ABOVE BACKGROUND LEVELS AT 1420, 2695, AND 4995 MHZ RESPECTIVELY. MODERATE IONOSPHERIC DISTURBANCES ALSO WERE OBSERVED. AT 24/1753Z REGION 176 PRODUCED A SUB-NORMAL/ONE-NORMAL FLARE, AND, NEARLY SIMULTANEOUSLY AT 1757Z, A SUB-BRILLIANT/ONE-BRILLIANT FLARE OCCURRED IN REGION 177 (N07W79). ERUPTIVE ARCHES ON THE DISK AND A DARK SURGE WERE OBSERVED ACCOMPANYING THE FLARE IN REGION 176. MINOR IONOSPHERIC EFFECTS AND RADIO BURSTS OF 20, 93, AND 94 FLUX UNITS, AT 1420, 2695, AND 4995 MHZ RESPECTIVELY, ACCCOMPANIED THESE NEARLY-SIMULTANEOUS FLARES. STRONG DEKAMETRIC CONTINUUM, BELIEVED TO BE ASSOCIATED WITH THE PROMINENT LEADER SPOT IN REGION 176, HAS BEEN OBSERVED DURING THE PAST SEVEN HOURS. REGION 176 NO LONGER CONTAINS A DELTA CONFIGURATION BUT STILL RETAINS A STRONG GRADIENT IN THE MAGNETIC FIELDS OF ITS MID-SECTION. SEVERAL DARK ABSORPTION FEATURES, PRESENTLY DECLINING, ARE PRESENT AROUND THE LEADER SPOT IN REGION 176. DURING THE PAST FOUR HOURS, SPOT DECAY HAS OCCURRED IN THE TRAILER AND MID-SECTION OF REGION 176. THREE NEW BIPOLAR SPOT GROUPS HAVE APPEARED ON THE NORTH-CENTRAL PART OF THE DISK. REGION 194, N12W03, CONTAINS A D-TYPE SPOT GROUP WITH ENHANCED PLAGE AND HAS PRODUCED SEVERAL NON-ENERGETIC SUBFLARES.

REGION 195, N16E03, IS VERY SMALL AND UNIMPRESSIVE. REGION 196, N20E06, CONTAINS A NORTH-SOUTH-ORIENTED D-TYPE SPOT GROUP WITH LEADING POLARITY IN THE NORTH, BUT THE PLAGE IS VERY UNIMPRESSIVE SO FAR. BRIGHTENINGS IN REGION 194 HAVE BEEN ACCCOMPANIED BY SYMPATHETIC RESPONSES IN THE PLAGE OF REGION 195 AND 196, INDICATING THAT THE THREE REGIONS ARE INTERACTING AS ONE COMPLEX. THE RATE OF DEVELOPMENT IN REGIONS 194, 195, AND 196 HAS DECREASED DURING THE PAST FOUR HOURS. A NEW H-TYPE SPOT WITH AN AREA OF 140 MILLIONTHS OF THE DISK IS VISIBLE AT S15E79, AND LARGE BUT DULL-LOOKING PLAGE IS PRESENT BEHIND THIS SPOT. OTHER REGIONS ARE UNIMPRESSIVE. QUIET GEOMAGNETIC CONDITIONS HAVE BEEN OBSERVED DURING THE PAST SEVEN HOURS.

B. SOLAR ACTIVITY PROBABLY WILL REMAIN AT A MODERATE LEVEL DURING THE THREE-DAY FORECAST PERIOD. REGION 176 IS CAPABLE OF PRODUCING ONE OR TWO SMALL CLASS M FLARES. THE COMPLEX CONSISTING OF REGIONS 194, 195, AND 196 COULD BECOME DYNAMIC IF ADDITIONAL DEVELOPMENT OCCURS. A PERIOD OF MINOR GEOMAGNETIC DISTURBANCE IS EXPECTED TO BEGIN LATE 25 JULY OR EARLY 26 JULY, WITH UNSETTLED CONDITIONS PERSISTING THROUGH 28 JULY.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 25 JULY/0000Z ENDING 27 JULY/2400Z  
CLASS M OR GREATER 75/80/85

CLASS X 10/10/10

PROTON EVENTS 10/10/10

D. OTTAWA 10.7 CM FLUXES FOR 24/1400Z, 24/1700Z AND 24/2000Z WERE 130, 130 AND 127 RESPECTIVELY. PREDICTED 10.7 CM FLUX FOR 25-27 JULY IS 132/135/130.

E. MAGNETIC A-FREDERICKSBURG FOR 23 JULY WAS 08. FOR 24 JULY ABOUT 07. PREDICTED AP FOR 25-27 JULY, 13/18/15.

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