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HFUS BOU 252200

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 176A ISSUED 0500Z 25 JUNE 1971

CLASS C FLARES ARE EXPECTED DURING THE NEXT 24 HOURS.

A. SOLAR ACTIVITY HAS REMAINED AT A LOW LEVEL DURING THE PAST SEVEN HOURS, AND ONLY A FEW CLASS C EVENTS HAVE BEEN REPORTED. GROWTH HAS CONTINUED IN THE SPOT GROUPS AND ASSOCIATED PLAGE OF THE REGIONS AT N15E45 AND S21W09, BUT NO SIGNIFICANT MAGNETIC COMPLEXITY HAS BEEN OBSERVED IN EITHER OF THESE REGIONS SO FAR. ENHANCED LEVELS OF SOLAR COSMIC RAYS HAVE BEEN OBSERVED BY THE PIONEER 7 SPACECRAFT, LOCATED APPROXIMATELY 12 COROTATIONAL DAYS BEHIND EARTH, SUGGESTING THAT A SIGNIFICANT ACTIVE REGION PRESENTLY MAY EXIST ON THE BACK SIDE OF THE SUN. THE LIMITED AVAILABLE DATA INDICATE THAT THIS HYPOTHETICAL ACTIVE CENTER PROBABLY WILL APPEAR ON THE EAST LIMB IN FOUR TO NINE DAYS. UNSETTLED GEOMAGNETIC CONDITIONS HAVE BEEN OBSERVED DURING THE PAST SEVEN HOURS.

B. SOLAR ACTIVITY IS EXPECTED TO INCREASE DURING THE THREE-DAY FORECAST PERIOD AS THE N15E45 AND S21W09 REGIONS DEVELOP. THE GEOMAGNETIC FIELD PROBABLY WILL BECOME DISTURBED ABOUT 27 JUNE, WITH UNSETTLED CONDITIONS LIKELY THROUGH 30 JUNE.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 25 JUNE/0000Z ENDING 27 JUNE/2400Z.

CLASS M OR GREATER 35/40/50

CLASS X 02/02/05

PROTON EVENTS 02/02/05

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HFUS BOU 252220

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 176B ISSUED 2200Z 25 JUNE 1971

OCCASIONAL CLASS C FLARES AND ONE OR TWO SMALL CLASS M FLARES ARE EXPECTED DURING THE NEXT 24 HOURS.

A. SOLAR ACTIVITY HAS INCREASED SIGNIFICANTLY DURING THE PAST 17 HOURS. DEVELOPMENT HAS CONTINUED SLOWLY IN THE S21W19 REGION, BUT NO MAGNETIC COMPLEXITY HAS EVOLVED IN THIS SIMPLE BIPOLAR REGION. THE GROWING CENTER AT N15E34 IS THE MOST INTERESTING DISK FEATURE, CONTAINING ENHANCED PLAGE AND A DEVELOPING BETA-GAMMA-TYPE SPOT GROUP. A NEW C-TYPE GROUP WITH ASSOCIATED PLAGE CONTAINING ARCH-FILAMENTS IS DEVELOPING AT N15E24, CLOSE TO THE LEADING PART OF THE N15E34 REGION. A NEW ACTIVE CENTER, PRESENTLY LOCATED BEHIND THE EAST LIMB NEAR SE08, HAS PRODUCED OCCASIONAL SMALL FLARES, IMPORTANCE-THREE SPRAYS, AND TYPE-THREE DEKAMETRIC RADIO BURSTS. NO SPOTS OR PLAGE ARE YET VISIBLE AT SE08, AND NO SIGNIFICANT X-RAY BURSTS HAVE BEEN PRODUCED BY THE REGION AT THAT LOCATION. THE GEOMAGNETIC FIELD, WHICH HAS EXHIBITED UNSETTLED CONDITIONS SINCE 24/1820Z, BECAME SIGNIFICANTLY DISTURBED EARLY ON 25 JUNE. DISTURBANCE INCREASED GRADUALLY, BUT K-INDICES OF 4 AND 5 WERE REPORTED BY MIDDLE-LATITUDE STATIONS DURING THE PAST 15 HOURS. THIS DISTURBANCE WAS UNUSUAL IN THAT LARGE FLUCTUATIONS OF THE VERTICAL COMPONENT WERE OBSERVED AT ANCHORAGE, ALASKA, WHERE A K-INDEX OF EIGHT WAS RECORDED DURING THE INTERVAL 25/1500-1800Z. DURING THE PAST FOUR HOURS, THE LEVEL OF DISTURBANCE HAS DECREASED CONSIDERABLY AT BOULDER. THE ORIGIN OF THIS RECENT PATTERN OF GEOMAGNETIC DISTURBANCE PRESENTLY IS UNCERTAIN.

B. SOLAR ACTIVITY IS EXPECTED TO INCREASE DURING THE NEXT 72 HOURS AS DEVELOPMENT CONTINUES IN THE REGIONS AT N15E34, N15E24, AND BEHIND THE LIMB AT SE08. THE GEOMAGNETIC FIELD PROBABLY WILL EXHIBIT INTERMITTENT DISTURBED CONDITIONS DURING THE NEXT THREE DAYS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 26 JUNE/0000Z ENDING 28 JUNE/2400Z

CLASS M OR GREATER 55/60/60

CLASS X 05/05/10

PROTON EVENTS 02/02/05

D. OTTAWA 10.7 CM FLUXES FOR 25/1400Z, 25/1700Z AND 25/2000Z WERE 105, 107 AND 106, RESPECTIVELY. PREDICTED 10.7 CM FLUX FOR 26-28 JUNE IS 110/115/120.

E. MAGNETIC A-FREDERICKSBURG FOR 24 JUNE WAS 07. FOR 25 JUNE ABOUT 23. PREDICTED AP FOR 26-28 JUNE IS 24/24/16.

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