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HAUS BOU 020430

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 092A ISSUED 0400Z 02 APRIL 1971

ONE OR TWO CLASS M EVENTS ARE EXPECTED DURING THE NEXT 13 HOURS.

A. DURING THE PAST 11 HOURS, DEVELOPMENT HAS CONTINUED IN THE UNUSUAL REGION AT S18W23, BUT ONLY CLASS C SUBFLARES HAVE BEEN OBSERVED. ADDITIONAL PENUMBRA AND AN EAST-WEST LINE OF SMALL SPOTS HAVE FORMED BETWEEN THE STRONG ANTIPOLAR LEADING UMBRAE, AND MAGNETIC DELTA CONFIGURATIONS ARE PRESENT AT SEVERAL LOCATIONS IN THIS COMPLEX GROUP. RECENT BRIGHTENINGS ARE OCCURRING IN THE PLAGE ASSOCIATED WITH THE WESTERN EDGE OF THE S18W23 REGION, AND THIS ACTIVE CENTER APPEARS TO BE CONTINUING ITS DEVELOPMENT. THE ATS-1 GEOSTATIONARY SATELLITE MEASURED A SLIGHT ENHANCEMENT OF SOLAR PROTONS IN THE 5-20 MEV ENERGY RANGE AT ABOUT 01/1700Z.

ATS-1 DATA WAS COMMANDED OFF AT 01/2200Z, AT WHICH TIME THE 5-20 MEV SENSOR REPORTED A FLUX OF 6 PARTICLES/CM2/SEC, OR APPROXIMATELY THREE TIMES THE QUIET FLUX. THE CAUSE OF THIS PARTICLE ENHANCEMENT HAS NOT BEEN DETERMINED, BUT RECENT ACTIVITY AT THE S18W23 REGION IS PROBABLY RESPONSIBLE. ENHANCED COUNTING RATES ALSO WERE OBSERVED BY SENSORS ON THE PIONEER 6 SPACECRAFT. A SMALL NEW ACTIVE REGION HAS EMERGED AT S20E30, AND OCCASIONAL MINOR BRIGHTENINGS HAVE OCCURRED IN THE PLAGE OF THE CENTER AT N13E04. OTHER REGIONS ARE UNIMPRESSIVE. THE GEOMAGNETIC FIELD HAS BEEN RELATIVELY QUIET DURING THE PAST 11 HOURS.

B. DURING THE 72-HOUR FORECAST PERIOD, MOST OF THE OBSERVED SOLAR ACTIVITY IS EXPECTED TO BE PRODUCED BY THE S18W17 REGION. SPORADIC CLASS M FLARES AND OCCASIONAL CLASS C FLARES ARE LIKELY. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN RELATIVELY QUIET DURING THE NEXT 11 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 02 APR/0400Z ENDING 05 APR/0400Z.

CLASS M OR GREATER 70/65/55

CLASS X 15/15/10

PROTON EVENTS 15/20/15

D. OTTAWA 10.7 CM FLUXES FOR 01/1700Z AND 01/2000Z WERE 97 AND 103 RESPECTIVELY.

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KBOU

HAUS BOU 021700

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 92B ISSUED 1700Z 02 APRIL 1971

MAJOR ACTIVITY IS EXPECTED WITHIN THE NEXT 24 HOURS.

A. THE REGION NEAR S18W30 CONTINUES TO PRODUCE CLASS C SUBFLARES, BUT NO CLASS M FLARES HAVE BEEN OBSERVED IN THE PAST 24 HOURS. THIS REGION IS CONTINUING TO EVOLVE FROM SUB-PHOTOSPHERIC LEVELS. THE TWO MAIN UMBRAE HAVE SEPARATED SLIGHTLY, BUT THEY ARE CONNECTED BY RELATIVELY DARK PENUMBRA WHICH SUGGESTS THAT FIELD GRADIENTS REMAIN HIGH. THE REGION REMAINS MAGNETICALLY COMPLEX. BOTH THE 5-21 AND 21-70 MEV CHANNELS WERE ENHANCED WHEN THE ATS-1 SATELLITE WAS COMMANDED BACK ON AT 02/1040Z. CURRENT FLUXES ARE ABOUT 75 P/CM²/SEC AT 5-21 MEV AND 1 P/CM²/SEC AT 21-70 MEV. THE GEOMAGNETIC FIELD HAS BEEN RELATIVELY QUIET.

B. A LARGE EVENT, LARGE CLASS M OR CLASS X, IS EXPECTED FROM THE S18W30 REGION WITHIN THE NEXT 24 HOURS. AN ADDITIONAL PROTON ENHANCEMENT NEAR EARTH IS EXPECTED TO FOLLOW SUCH AN EVENT. A SMALL TO MODERATE GEOMAGNETIC STORM IS EXPECTED TO BEGIN 03/1800-2400Z.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 02 APRIL/1700Z ENDING 05 APRIL/1700Z.

CLASS M OR GREATER 90/70/70

CLASS X 25/15/10

PROTON EVENTS 25/15/10

D. OTTAWA 10.7 CM FLUX FOR 02/1400Z WAS 107. PREDICTED 10.7 CM FLUX FOR 03-05 APRIL IS 108/110/112.

E. MAGNETIC A-FREDERICKSBURG FOR 01 APR WAS 12. FOR 02 APR ABOUT 08 PREDICTED AP FOR 03-05 APRIL, 30/20/12.

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