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HXUS BOU 240500

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 267A ISSUED 0500Z 24 SEPT 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 NO ENERGETIC ACTIVITY HAS BEEN REPORTED.

ENHANCED PLAGE IS PRESENT AT S05W83, WHERE NEW MAGNETIC FIELDS PROBABLY ARE EMERGING. THE MOST IMPRESSIVE SOLAR FEATURE PRESENTLY IS REGION 277, NOW CROSSING THE EAST LIMB NEAR SE05. SO FAR ONLY AN H-TYPE SPOT WITH LITTLE PLAGE IS VISIBLE, BUT SURGE ACTIVITY IS CONTINUING BEHIND THE LIMB AT THAT LOCATION. OTHER REGIONS ARE UNIMPRESSIVE. THE GEOMAGNETIC FIELD HAS REMAINED UNUSUALLY QUIET DURING THE PAST SEVEN HOURS.

B. NO CHANGE

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

CLASS M OR GREATER 40/50/50

CLASS X 02/02/02

PROTON EVENTS 01/01/01

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FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 267B ISSUED 2200Z 24 SEPT 1971

CLASS C FLARES EXPECTED

A. ACTIVITY ON THE SOLAR DISK HAS BEEN FREQUENT, SCATTERED AMONG SEVERAL REGIONS AND MINOR. A FLARE YESTERDAY /23/1600Z/ AT S05E90 WAS TENTATIVELY CLASSIFIED AS CLASS M BUT WAS RECORDED BY SOLRAD 9 AS CLASS C. AN EVENT TODAY AT 24/0447Z, IN REGION 262 TRANSITING WEST LIMB AT N12, WAS CLASS C8. AN IMPORTANCE 1 FLARE IN THE OLD REGION 263/266 COMPLEX /S17W60/ AT 1011Z WAS PROBABLY CLASS C ALSO. SEVERAL LARGE EXTENSIVE FILAMENTS ON THE WESTERN THIRD OF THE VISIBLE DISK HAVE BEEN ACTIVE, PHENOMENA ASSOCIATED WITH FLARE ACTIVITY IN OLD NEARLY DECAYED REGIONS SUCH AS THOSE CURRENTLY NEAR THE WEST LIMB. REGION 277 /S07E72/ IS CLEAR OF THE LIMB AND IS NOW IN A TYPICAL CONFIGURATION FOR OLD BIPOLAR REGIONS WITH A LARGE H-TYPE LEADER SPOT AND SIMPLE MOSTLY-FOLLOWER-POLARITY PLAGE. AN EXTENSIVE FILAMENT SEPARATES THE LEADER AND FOLLOWER AND EXTENDS WELL OUT OF THE REGION. THIS FILAMENT HAS BEEN ACTIVE AND ACCOUNTS FOR MOST OF THE REPORTED VISUAL ACTIVITY IN 277. REGION 273 /S14E14/ HAS GROWN SLIGHTLY IN MOST PARAMETERS AND IS NOW CLASSED AS BETA-GAMMA BY MT. WILSON. THE MAGNETIC FIELD HAS BEEN QUIET WITH EVEN LITTLE INDICATION OF NIGHT-TIME SUBSTORM ACTIVITY. THE LOW ENERGY /5-21 MEV/ PROTON DETECTOR ON GEO-SYNCHRONOUS SATELLITE ATSI REFLECTS THE QUIET STATE OF THE INTERPLANETARY/MAGNETOSPHERE SYSTEM WITH COUNTING RATES ABOUT ONE FOURTH THE NORMAL QUIET TIME VALUES.

B. PROMINENCE ACTIVITY TYPE FLARES ARE EXPECTED IN REGIONS 263/266 AND 277. SUCH SPORADIC FLARES WILL PRBABLY NOT EXCEED CLASS M1 INTENSITY, THOUGH 263/266 COULD STILL PRODUCE A SOMEWHAT MORE ENERGETIC EVENT IN THE NEXT THREE DAYS. REGION 273 WILL CONTINUE TO GROW SLOWLY AND WILL HAVE A BASICALLY BIPOLAR CONFIGURATION WITH SOME MAGNETIC COMPLEXITY. IT LIES IN A LOCATION THAT HAS PRODUCED A FEW ENERGETIC EVENTS IN THE PAST 8 MONTHS AND WILL PROBABLY PRODUCE A CLASS M1 FLARE EVERY TWO TO FOUR DAYS DURING ITS DISK PASSAGE. THE GEOMAGNETIC FIELD IS EXPECTED TO BE GENERALLY QUIET WITH NIGHTTIME UNSETTLED PERIODS UNTIL 26 OR 27 SEPT WHEN A DISTURBANCE IS EXPECTED WITH MID-LATITUDE K VALUES OF MOSTLY 3 BUT OCCASIONALLY 4 OR 5. SUCH A RECURRING DISTURBANCE IS DUE ON SEPT 27 OR 28 BUT RECENT EVENTS MAY HAVE "STRAIGHTENED" THE ARCHIMEDIAN SPIRAL IN THE SOLAR WIND SO THE PRESUMED SECTOR BOUNDARY COULD AFFECT EARTH ONE TO TWO DAYS EARLY.

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

CLASS M OR GREATER 50/45/40

CLASS X 02/02/02

PROTON EVENTS 10/10/05

D. OTTAWA 10.7CM FLUXES FOR 24/1400Z, 24/1700Z AND 24/2000Z WERE 105, 106 AND 104 RESPECTIVELY. PREDICTED 10.7CM FLUX FOR 25-27 SEPT IS 105/105/102.

E. MAGNETIC A-FREDERICKSBURG FOR 23 SEPT WAS 02. FOR 24 SEPT ABOUT 02. PREDICTED AP FOR 25-27 SEPT IS 09/11/15.

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