

NNNNUU0433

NNNNEGVI

KMSC

HAUS BOU 030430Z

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 464A ISSUED 0400Z 03 DECEMBER 1969

NO M-FLARE ACTIVITY IS EXPECTED DURING THE NEXT 13 HOURS.

A. THE MOST RECENT M FLARE OCCURRED IN THE VICINITY OF AN ALMOST INDISCERNIBLE SPOT GROUP WITH A START TIME NEAR 02/1742Z. THIS 1N FLARE WAS U-SHAPED IN APPEARANCE AND LASTED ABOUT 53 MINUTES. FOUR SPOT GROUPS CURRENTLY VISIBLE-ONE LOCATED IN EACH OF THE DISC QUADRANTS-ARE OF ABOVE AVERAGE SIZE AND COMPLEXITY. THEIR AVERAGE AREA IS APPROXIMATELY 150 MILLIONTHS. THE 2 AT POSITIONS S20E20 AND N21W30 HAVE SHOWN SOME DEVELOPMENT IN THEIR LEADING PORTIONS DURING THE PAST 24 HOURS. THE LATTER CONTAINS THE BRIGHTEST HYDROGEN PLAGE ON THE DISC AS WELL AS THE STRONGEST 9.1 CM SOURCE.

B. NO FURTHER FLARE PRODUCTION ESPECIALLY OF THE M-TYPE IS EXPECTED FROM THE SOURCE OF THE EVENT DESCRIBED ABOVE. CLASS C FLARES HOWEVER SHOULD CONTINUE FROM THE N21W30 S14W24 AND S20E20 CENTERS THESE NEXT 3 DAYS. PIONEER 6 AND 7 LOW-ENERGY PROTON FLUX ENHANCEMENTS REFERRED TO 2 MESSAGES EARLIER MAY VERY WELL BE ASSOCIATED WITH RECENT ACTIVITY FROM THE H/110 REGION NOW 25 DEGREES INSIDE THE NE LIMB.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 03 DEC/0400Z ENDING 06 DEC/0400Z

CLASS M OR GREATER 25/25/25

CLASS X 02/02/02

PROTON EVENTS 01/01/01

D. OTTAWA 10.7 CM FLUXES FOR 02/1700Z AND 2000Z WERE 135 AND 139 RESPECTIVELY.

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HAUS BOU 031700Z

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 464B ISSUED 1700Z 03 DECEMBER 1969

ONLY CLASS C FLARES ARE EXPECTED DURING THE NEXT 11 HOURS

A. HIGHLIGHTS FOR THE PERIOD 26 NOVEMBER-02 DECEMBER 1969--

MCMATH REGION 432 CONTINUED TO GENERATE M AND X FLARES AS IT PASSED OVER THE WEST LIMB. INTENSE X-RAY BURSTS DURING THIS PERIOD BEGAN AT 27/1928Z /1B/ 28/1440Z /UNKNOWN/ AND 28/1950Z /UNKNOWN/ BUT OF UNUSUALLY LONG DURATION; ABOUT 4 HOURS/. THE FIRST OF THE TRIO PRODUCED A NEAR SIMULTANEOUS RISE ON THE 0-3 1-8 AND 8-20 ANGSTROM PASSBANDS OF THE NRL SOLRAD SATELLITE. ACCOMPANYING RADIO BURST DATA INDICATED A 900 F. U. RISE AT 10CM. THE TWO FLARES FOLLOWING ON THE 28TH TOOK PLACE WHEN THE MAIN BODY OF THE REGION WAS APPROXIMATELY 5 AND 8 DEGREES BEYOND THE LIMB RESPECTIVELY. WHAT WAS OBSERVED OPTICALLY BETWEEN NO7-16 CONSISTED OF IMPORTANCE 1 OR 2 BRIGHT LTOPS SURGES CORONAL RAIN AND IN ONE CASE A RISING PROMINENCE. PARTIAL RADIO SOURCE OCCULTATION MIGHT ACCOUNT FOR THE PROGRESSIVELY WEAKER RADIO RESPONSES ATTENDING THESE EVENTS. IN HARMONY WITH THE PREVIOUS WEEK'S ACTIVITY LOG NO HIGH OR LOW ENERGY PROTONS WERE DETECTED NEAR EARTH AFTER THIS SERIES OF LIMB FLARES. FURTHER ERUPTIONS OCCURRED 29 NOVEMBER WITH THE TRAILING PORTION OF THE CENTER THEN 10 DEGREES BEYOND THE LIMB. LOCAL IONOSPHERIC EFFECTS BEGAN ABOUT 1041Z. MATERIAL WAS OBSERVED PROJECTED ABOVE THE LIMB OUT TO 0.3 SOLAR RADIUS; LOOPS FOLLOWED. THE GEOMAGNETIC FIELD WAS DISTURBED ON 27 NOVEMBER WITH A FREDERICKSBURG A-INDEX OF 20. DURING THE PAST FOUR DAYS SOLAR ACTIVITY HAS SHARPLY DECLINED. FOUR SMALL REGIONS MCMATH NUMBERS 447 465 455 AND 449 HAVE GRADUALLY DEVELOPED WITH AN AVERAGE AREA OF 150 MILLIONTHS. NONE APPEAR VERY COMPLEX EITHER IN WHITE LIGHT OR HYDROGEN-ALPHA AND THEIR MAGNETIC STRUCTURES ARE SIMPLE UNI- OR BIPOLAR CONFIGURATIONS.

B. FORECAST FOR THE PERIOD 04-10 DECEMBER 1969--

A FEW CLASS M FLARES ARE ANTICIPATED SPORADICALLY THROUGHOUT THE COMING WEEK MOSTLY FROM THE REGION AT N20W38 /MCMATH 447/. THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED THROUGHOUT THE PERIOD.

28-DAY FOREC

E FOR 04-31 DECEMBER 1969--

SOLAR ACTIVITY WILL BECOME MODERATELY ENHANCED ON 12 DECEMBER AS MCMATH REGION 432 WILL RETURN TO EAST LIMB.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 03/1700Z ENDING 06/1700Z.

CLASS M OR GREATER 30/30/40

CLASS X 02/02/05

PROTON EVENTS 01/01/02

D. OTTAWA 10.7 CM FLUX AT 1400Z WAS 137. PREDICTED 139/142/145.

E. MAGNETIC A-FREDERICKSBURG FOR 02 DEC WAS 02. FOR 03 DEC ABOUT 01. PREDICTED AP FOR 04-06 DEC 15/15/15.

SOLTERWARN

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