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HAUS BOU 220510Z

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 695A ISSUED 0400Z 22 JULY 1970

ONE OR TWO M-FLARES ARE EXPECTED DURING THE NEXT 13 HOURS FROM THE N08E26 ACTIVE CENTER.

A. A MAJOR FLARE, RUNNING FROM SB TO 2B IN OPTICAL CLASSIFICATION, BEGAN ABOUT 22/0011Z NEAR N08E35. ALL THE CLASSIC RADIO NOISE INDICES SUCH AS TYPE IV EMISSION, SIZE OF 10CM BURST, AND GENERAL CHARACTER OF THE MICROWAVE SPECTRUM IMPLIED ENERGETIC PROTONS. NONE HAVE BEEN DETECTED - A CONSEQUENCE NO DOUBT OF UNFAVORABLE SOLAR WIND GEOMETRY. IMPORTANCE 3 SPAS AND ONE SUCH SWF IMPLY A 1-3 ANGSTROM PEAK FLUX WELL INTO THE M REGIME IF NOT THE X CLASSIFICATION. MAXIMUM BURST LEVELS AS RECORDED BY CARNARVON'S 3-CHANNEL RADIOMETER WERE 820, 1780, AND 5651 AT 1420, 2695, AND 5000 MHZ RESPECTIVELY. FLARE AND RADIO NOISE BURST DURATION WERE BOTH APPROXIMATELY AN HOUR. THIS N08E26 REGION IS ESSENTIALLY ONE LONG, COMPLEX PENUMBRA WITH 2 DELTA CONFIGURATIONS WITHIN THE LEADING PORTION. ALTHOUGH IT IS AT LEAST 6 DAYS OLD, TOTAL AREA STILL REMAINS LESS THAN 1000 MILLIONTHS; THE LONGITUDINAL SPREAD, HOWEVER, IS ABOUT 10 DEGREES. MOREOVER, WHAT MAY WELL BE A SATELLITE SPOT GROUP IS DEVELOPING TO THE NE OF THE TRAILING SEGMENTS. REMAINING POINTS OF INTEREST ON THE DISK INCLUDE THE NEAR FLARE-BRIGHT PLAGE ASSOCIATED WITH THE DECLINING REGION NEAR N18W30 AND SURGE ACTIVITY ALONG THE SE LIMB.

B. A PROTON EVENT IS ANTICIPATED SOMETIME DURING THE NEXT 2 DAYS (TODAY INCLUDED) FROM THE NE CENTER. PIONEER 6 DATA INDICATE THAT THIS SPOT GROUP WAS THE SOURCE OF MODERATE HIGH-ENERGY PROTON STREAMS 2 DAYS AGO, AND IT IS VERY LIKELY THAT THE 22/0011Z EVENT DESCRIBED ABOVE WILL PRODUCE A SIMILAR PROTON SHOWER IN THE VICINITY OF PIONEER 8. NO PCA OR EVEN SUBSTANTIAL BACKGROUND ENHANCEMENTS AT SATELLITE ALTITUDES ARE EXPECTED FROM THIS MOST RECENT ERUPTION. THE GEOMAGNETIC FIELD SHOULD NOT BE UNDULY DISTURBED THESE NEXT 48 HOURS. THERE WAS A SMALL SC AT 21/0736Z BUT THIS PROBABLY REPRESENTED THE PASSAGE OF A SECTOR BOUNDARY. THE REGION'S CENTRAL MERIDIAN DISTANCE COUPLED WITH THE RELATIVELY LARGE B-ANGLE, I.E. THE BOLOMETRIC LATITUDE OF TRUE CENTER OF DISK, ARE EXPECTED TO INSURE MINIMAL, IF ANY, GEOMAGNETIC FIELD DISRUPTIONS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 22 JULY/0400Z ENDING 25 JULY/0400Z

CLASS M OR GREATER 95/100/95

CLASS X 50/80/50

PROTON EVENTS 50/80/50

D. OTTAWA 10.7 CM FLUXES FOR 21/1700Z AND 21/2000Z WERE 158 AND 154 RESPECTIVELY.

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HAUS BOU 221700Z.

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 695B ISSUED 1700Z 22 JULY 1970

AN X FLARE IS EXPECTED IN THE NEXT 11 HOURS

A. SINCE THE X FLARE OF 22/0013Z THE N08E19 REGION HAS PRODUCED TWO FLARES OF WHICH ONE WAS AN OPTICAL ONE NORMAL M FLARE, 22/0801Z. THE REGION HAS UNDERGONE MORE DEVELOPMENT SINCE YESTERDAY. THE LEADER DELTA IS STRONGER AND THE FOLLOWER SHOWS MORE SPOTS EMERGING. THE NEUTRAL LINE HAS BECOME MORE TWISTED AND CONVOLUTED. THE N18W90 REGION REMAINED BRIGHT IN PLAGE UNTIL IT WAS OBSCURED BY ITS LIMB POSITION. TWO NEW REGIONS HAVE EMERGED AT S13E68, D TYPE SPOTS, AND S20E71, B TYPE SPOTS. THE 184 MHS RADIO NOISE STORM THAT BEGAN YESTERDAY IS CONTINUING TODAY. ATS-1 PROTON DETECTORS ARE AT BACKGROUND.

B. THE NE REGION IS EXPECTED TO PRODUCE AT LEAST ONE MAJOR EVENT IN THE NEXT THREE DAYS. ALL THE NECESSARY PROPERTIES ARE PRESENT IN THIS REGION FOR A PARTICLE EVENT TO OCCUR. IT IS FELT THAT THE RECENT LULL IN ACTIVITY MIGHT BE THE BUILD UP PERIOD FOR A LARGER FLARE TO OCCUR. THE GEOMAGNETIC FIELD IS EXPECTED TO EXPERIENCE OCCASIONAL PERIODS OF UNSETTLED BEHAVIOR.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 22 JULY/1700Z ENDING 25 JULY/1700Z.

CLASS M OR GREATER 95/95/95

CLASS X 80/70/70

PROTON EVENTS 50/55/60

D. OTTAWA 10.7CM FLUX FOR 21/1400Z WAS 155. PREDICTED 10.7CM FLUX FOR 23-25 JULY IS 165/170/175.

E. MAGNETIC A-FREDERICKSBURG FOR 21 JULY WAS 24. FOR 22 JULY ABOUT 20. PREDICTED AP FOR 23-25 JULY IS 18/18/18.

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