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HAUS BOU 140450Z

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 713A ISSUED 0400Z 14 AUG 1970

CLASS M-EVENTS ARE EXPECTED DURING THE NEXT 13 HOURS.

A. ABOUT 13 FLARES OCCURRED YESTERDAY WITHIN THE N17W52 REGION, MAKING IT BY FAR THE MOST ACTIVE ON THE DISK. FIVE OF THESE SMALL ERUPTIONS RANKED AS M EVENTS. THE CHARACTERISTIC SIGNATURE OF THIS SPOT GROUP APPEARS TO BE FLARES ACCOMPANIED BY MODERATE SOFT AND HARD X-RAYS WITH LITTLE OR NO RADIO NOISE EMISSION. ITS HYDROGEN PLAGE HAS REMAINED FLARE BRIGHT FOR APPROXIMATELY THE LAST 12 HOURS. MAGNETICALLY THE DISK FEATURE IS BETA-GAMMA WITH A SMALL DELTA CONFIGURATION IN THE FOLLOWER. A LARGE H-TYPE SPOT GROUP HAS ROTATED INTO VIEW NEAR N09 ON THE EAST LIMB. PLAGE THERE IS ONLY MODERATELY BRIGHT AND FEW, IF ANY, SURGES ARE VISIBLE. THE REGION'S OVERALL ACTIVITY HAS GREATLY DIMINISHED SINCE THE EVENTS OF THE 11TH AND 12TH. QUIET GEOMAGNETIC CONDITIONS PREVAIL.

B. ADDITIONAL MAJOR ACTIVITY IN THE CLASS OF THE 11/2320 AND 12/2010Z EAST LIMB EVENTS IS NOT EXPECTED. PIONEER 7 SPACECRAFT DATA IMPLY THAT ENERGETIC FLARES HAVE BEEN ERUPTING WITHIN THE NE LIMB REGION SINCE BEFORE 10 AUG. FIVE DAYS OF SUCH INTENSE OUTBURSTS HAS APPEARED TO BE ABOUT THE LIMIT FOR ACTIVE CENTERS THIS SOLAR CYCLE. EXTREMELY UNFAVORABLE SOLAR WIND GEOMETRY SHOULD RULE OUT GROUND-BASED PROTON DETECTION FROM THE ABOVE FLARES. AN ENHANCED BACKGROUND, HOWEVER, IN THE 1 TO 100 MEV ENERGY RANGE IS ANTICIPATED. (ATS-1 IS CURRENTLY REGISTERING A SLIGHT ENHANCEMENT AND WILL VERY LIKELY INCREASE ALMOST MONOTONICALLY DURING THE NEXT 3 DAYS.) AN UNSETTLED GEOMAGNETIC FIELD IS ANTICIPATED BY LATE TODAY, BEING PRIMARILY A RESULT OF YESTERDAY'S ACTIVITY WITHIN THE N17W52 COMPLEX.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 14 AUG/0400Z ENDING 17 AUG/0400Z

CLASS M OR GREATER 95/95/95

CLASS X 30/20/20

PROTON EVENTS 10/15/20

D. OTTAWA 10.7 CM FLUXES FOR 13/1700Z AND 13/2000Z WERE BOTH 146.

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HAUS BOU 141720Z

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 718B ISSUED 1700Z 14 AUGUST 1970

CLASS-M EVENTS ARE EXPECTED AND CLASS-X EVENTS ARE NOT UNLIKELY DURING THE NEXT 11 HOURS.

A. SOLAR ACTIVITY HAS BEEN AT A MODERATELY HIGH LEVEL DURING THE PAST 13 HOURS; AT LEAST SEVEN CLASS-M EVENTS HAVE OCCURRED DURING THAT PERIOD. THE MOST SIGNIFICANT EVENT, A ONE-BRILLIANT FLARE, WAS PRODUCED BY THE REGION AT N08E75 AT 14/1600Z; THIS FLARE WAS ACCOMPANIED BY SIGNIFICANT IONOSPHERIC DISTURBANCES AND BY STRONG RADIO BURSTS ON VARIOUS FREQUENCIES. A BURST OF AT LEAST FIVE HUNDRED FLUX UNITS ABOVE BACKGROUND LEVELS WAS RECORDED AT 2695 MHZ AT SEVERAL OBSERVATORIES. THERE IS A SLIGHT-TO-MODERATE CHANCE THAT A MINOR PROTON EVENT MAY OCCUR NEAR EARTH AS A RESULT OF THE 1600Z FLARE. SIGNIFICANT DEVELOPMENT HAS OCCURRED IN THE REGION AT N16W74; THIS COMPLEX REGION NOW CONTAINS AN F-TYPE SPOT GROUP WITH AN AREA OF 720 MILLIONS. THE N16W74 REGION CONTAINS AT LEAST ONE MAGNETIC DELTA COMPLEX. AND THIS REGION IS VERY ENHANCED BOTH AT MICROWAVE AND OPTICAL WAVELENGTHS. THE REGION AT N08E76 PRESENTLY CONSISTS OF A C-TYPE SPOT GROUP WITH AN AREA OF 280 MILLIONTHS, BUT THERE IS A POSSIBILITY THAT MORE SPOTS MAY CROSS THE LIMB SOON. THE N06E76 REGION IS BELIEVED TO BE MAGNETICALLY COMPLEX, AND PRELIMINARY EVALUATIONS SUGGEST THAT THIS REGION MAY BE A GAMMA-TYPE GROUP. ATS-1 PROTON COUNTING RATES CURRENTLY ARE ENHANCED TO ABOUT TEN TIMES THE NORMAL BACKGROUND LEVELS, AND THESE RATES APPEAR STILL TO BE INCREASING GRADUALLY. THE GEOMAGNETIC FIELD HAS REMAINED QUIET DURING THE PAST 24 HOURS.

B. SOLAR ACTIVITY IS EXPECTED TO REMAIN HIGH DURING THE FORECAST PERIOD. CLASS-M EVENTS ARE VIRTUALLY CERTAIN TO OCCUR EVERY FEW HOURS FROM THE N08E75 AND N16W74 REGIONS, AND CLASS-X EVENTS ARE NOT UNLIKELY. THERE IS A SMALL-TO-FAIR CHANCE THAT A SIGNIFICANT PROTON EVENT MAY OCCUR. THE GEOMAGNETIC FIELD IS EXPECTED TO SHOW PERIODS OF DISTURBANCE DURING THE NEXT 24 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 14 AUG/1700Z ENDING 17 AUG/1700Z.

CLASS M OR GREATER 99/99/99

CLASS X 40/35/35

PROTON EVENTS 30/20/20

D. OTTAWA 10.7 CM FLUX FOR 14/1400Z WAS 164.

PREDICTED 10.7 CM FLUX FOR 15-17 AUG IS 172/173/170.

E. MAGNETIC A-FREDERICKSBURG FOR 13 AUG WAS 08. FOR 14 AUG ABOUT 08. PREDICTED AP FOR 15-17 AUG, 19/14/11.

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