

KBOU

HAUS BOU 170500

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 137A ISSUED 0500Z 17 MAY 1971

CLASS C FLARES ARE EXPECTED DURING THE NEXT 24 HOURS.

A. SOLAR ACTIVITY CONTINUES AT A LOW LEVEL. THE NON-ENERGETIC SUB-FLARES WHICH HAVE BEEN OBSERVED HAVE BEEN FROM REGION N05E03 (078). THE PLAGE ALONG THE NEUTRAL LINE IN REGION 078 HAS BEEN FLUCTUATING DURING THE PAST THREE HOURS. THERE IS A NEW REGION WITH H TYPE SPOT AT N18E1. THE REST OF THE DISK REGIONS ARE QUIET AND STABLE. A GEOMAGNETIC DISTURBANCE, WITH A GRADUAL COMMENCEMENT, STARTED AT 17/0030Z. ATS-1 READOUTS INDICATE 21-70 MEV REACHED MAXIMUM AT 16/2300Z WITH 40 COUNTS, 5-20 MEV IS READING 380 COUNTS AT PRESENT.

B. SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT PRESENT LEVEL. THE SATELLITE PROTON COUNT WILL SLOWLY DECREASE. THE GEOMAGNETIC FIELD WILL HAVE DISTURBED CONDITIONS FOR THE NEXT 24 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 17 MAY/0000Z ENDING 19 MAY/2400Z

CLASS M OR GREATER 45/55/45

CLASS X 05/05/05

PROTON EVENTS 05/05/05

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HAUS BOU 172200

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 137B ISSUED 2200Z 17 MAY 1971

CLASS C FLARES ARE EXPECTED DURING THE NEXT 24 HOURS.

A. SINCE THE EARLIER MESSAGE ONLY NON-ENERGETIC SUBFLARES HAVE BEEN OBSERVED. THESE EVENTS HAVE NOT BEEN CONFINED TO ANY SINGLE DISK FEATURE BUT EVIDENTLY SCATTERED AMONG ALL BUT ONE OF THE EIGHT SMALL REGIONS VISIBLE. THE ASYMMETRIC SPOT GROUP NEAR N07 CM IS STILL THE MOST COMPLEX WITH AN AREA JUST OVER 200 MILLIONTHS, THE MOST INTENSE HYDROGEN PLAGE ON THE DISK, AND A MIXTURE OF POLARITIES IN THE LEADER. IF THE SOURCE OF YESTERDAY'S PARTICLE EVENT IS TAKEN TO BE THE 14/1411Z M9 FLARE, NEARLY 48 HOURS ELAPSED BETWEEN THE EVENT AND EARTH INTERCEPTION OF PROTONS. ONSET TIMES AS OBSERVED BY THE AEROSPACE ATS-1 EXPERIMENT DIFFERED BY APPROXIMATELY AN HOUR ON THE HIGH AND LOW ENERGY CHANNELS. PEAK FLUXES WERE 24 /16/1800Z/ AND 387 /17/0400Z PART/CM2/SEC AT 21-70 AND 5-21 MEV RESPECTIVELY. AT MOST ABOUT 0.6 DB /DAYLIGHT/ WAS RECORDED BY THULE'S 30 MHZ RIOMETER WHILE BAR 1 REGISTERED 1.5. THE ABOVE PROTON EVENT, ACCORDING TO THE RECENTLY ADOPTED CLASSIFICATION SCHEME OF SMART AND SHEA OF AFCL, FALLS INTO CATEGORY ONE. INDEX NUMBER 1 IMPLIES /1/ MAXIMUM SATELLITE MEASURED PROTON INTENSITY IN PART/CM2/SEC/STER BETWEEN 10 EXP 0 AND 10 EXP 1 AT ENERGIES GREATER THAN 10 MEV /2/ DAYLIGHT ABSORPTION ON A POLAR 30 MHZ RIOMETER LESS THAN 1.5 DB AND /3/ SEA LEVEL NEUTRON MONITOR INCREASE LESS THAN 3 PER CENT. SOME 57 HOURS FOLLOWING THE SAME FLARE ON THE 14TH A MAGNETIC STORM BEGAN CHARACTERIZED BY A GRADUAL ONSET SHORTLY AFTER 17/0030Z. THE K INDEX REACHED 6 FOR A HIGH DURING THE PERIOD 17/0030Z TO 0900Z PERIOD AT BOTH THE FREDERICKSBURG GEOMAGNETIC CENTER AND BOULDER. FOR 17 MAY A-FREDERICKSBURG SHOULD BE EQUAL TO ABOUT 43, PLACING THE DISTURBANCE WELL INTO THE "MINOR" STORM CATEGORY.

B. CONTINUED DECAY IS ANTICIPATED WITHIN REGION 078 /N07 CM/ DURING THE NEXT THREE DAYS. ENERGETIC FLARES, IF ANY, SHOULD BE THRESHOLD LEVEL EVENTS, I.E. NEAR M1 IN LEVEL. A SECOND DAY OF DISTURBED GEOMAGNETIC CONDITIONS IS EXPECTED. K-INDICES AVERAGING 3 AND 4 ARE FORESEEN AT MAGNETIC LATITUDE 40 DEGREES IN THE NEXT 24 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 18 MAY/0000Z ENDING 20 MAY/2400Z.

CLASS M OR GREATER 55/45/45

CLASS X 05/05/02

PROTON EVENTS 01/01/01

D. OTTAWA 10.7 CM FLUXES FOR 17/1400, 1700, AND 2000Z WERE 112, 110, AND 110 RESPECTIVELY.

PREDICTED 10.7 CM FLUX FOR 18-20 MAY IS 111/110/105.

E. MAGNETIC A-FREDERICKSBURG FOR 16 MAY WAS 05. FOR 17 MAY ABOUT 43. PREDICTED AP FOR 18-20 MAY, 14/09/06.

SOLTERWARN

SPAM