

KBOU

HAUS BOU 160400

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 106A ISSUED 0400Z 16 APRIL 1971

CLASS C FLARES ARE EXPECTED DURING THE NEXT 13 HOURS.

A. SOLAR ACTIVITY HAS REMAINED AT A LOW LEVEL DURING THE PAST 11 HOURS, AND ONLY A FEW CLASS C FLARES HAVE BEEN REPORTED. THE TRAILING SPOTS OF THE GROUP AT S04W31 HAVE MOVED SLIGHTLY TOWARD THE LEADING PENUMBRA OF THE REGION AT S04W21, INCREASING THE MAGNETIC GRADIENT BETWEEN THESE TWO SIMPLE BIPOLAR REGIONS. ACCORDING TO SPECTROGRAPHIC OBSERVATIONS AT THE MT. WILSON OBSERVATORY AND AT BOULDER, ALL THE SUNSPOT GROUPS ON THE DISK CONTAIN RELATIVELY SIMPLE MAGNETIC CONFIGURATIONS. THE GEOMAGNETIC STORM THAT BEGAN AT 14/1244Z HAS DECREASED IN INTENSITY DURING THE PAST 11 HOURS, BUT UNSETTLED CONDITIONS STILL ARE BEING OBSERVED.

B. DURING THE THREE-DAY FORECAST PERIOD, SOLAR FLARE ACTIVITY PROBABLY WILL CONSIST ONLY OF CLASS C FLARES. NEVERTHELESS, IF THE DISTANCE BETWEEN THE S04W31 AND S04W21 REGIONS DECREASES SIGNIFICANTLY, AT LEAST ONE ENERGETIC FLARE MAY BE PRODUCED BY THESE COLLIDING SUNSPOT GROUPS. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN SLIGHTLY DISTURBED DURING THE NEXT 24 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 16 APR/0400Z ENDING 19 APR/0400Z.

CLASS M OR GREATER 30/35/35

CLASS X 02/05/05

PROTON EVENTS 05/05/10

D. OTTAWA 10.7 CM FLUXES FOR 15/1700Z AND 15/2000Z WERE 139 AND 137 RESPECTIVELY.

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HAUS BOU 161700

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 106B ISSUED 1700Z 16 APRIL 1971

CLASS C FLARES EXPECTED

A. A CLASS M1 FLARE BEGAN AT 0740Z AT N20E30. THOUGH DIRECT CONFIRMATION IS LACKING, THIS CENTER OR THE ONE JUST SOUTH OF IT /NOW AT N10E18-28/ WAS PROBABLY THE SITE OF A MAJOR EVENT ABOUT 10 APRIL 1971 THAT WAS THE SOURCE OF THE CURRENTLY DECLINING GEOMAGNETIC STORM. RADIOHELIOGRAPHIC DATA FROM CULGOORA CONFIRM EITHER OR BOTH OF THESE CENTERS AS THE SOURCE OF THE EARLIER PORTIONS OF THE DEKAMETRIC NOISE STORM OF THE PAST FEW DAYS. BOTH CENTERS NOW HAVE SIMPLE PHOTOSPHERIC STRUCTURES AND THEIR CORONAL TEMPERATURES HAVE COOLED IN THE CENTIMETRIC REGIME THOUGH SOME COMPLEXITIES REMAIN IN THE CHROMOSPHERIC PLAGE STRUCTURES. THE GEOMAGNETIC STORM HAS CONTINUED WITH DECLINING INTENSITIES.

B. MINOR FLARES ARE EXPECTED FROM THE SEVERAL DISK REGIONS. THERE IS SOME CHANCE OF SPORADIC DECAY-PHASE-TYPE FLARES RANGING TO NEAR-CLASS-M INTENSITIES AT N20E30 AND AT S04W33. ANY EVENT AT THE LATTER LOCATION WOULD HAVE GOOD PROBABILITY OF PRODUCING A LOW-ENERGY PROTON EVENT. SOME GEOMAGNETIC DISTURBANCE IS EXPECTED TO CONTINUE.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 16 APR/1700Z ENDING 19 APR/1700Z.

CLASS M OR GREATER 30/30/30

CLASS X 02/02/02

PROTON EVENTS 08/08/08

D. OTTAWA 10.7CM FLUX FOR 16/1400Z WAS 139. PREDICTED 10.7CM FLUX FOR 17-19 APRIL IS 137/136/135.

E. MAGNETIC A-FREDERICKSBURG FOR 15 APRIL WAS 33. FOR 16 APR ABOUT 14. PREDICTED AP FOR 17-19 APRIL IS 10/08/10.

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