

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO
SDF NUMBER '027A ISSUED 0400Z 27 JANUARY 1971

CLASS C FLARES AND ONE OR TWO CLASS M FLARES ARE ANTICIPATED DURING
THE NEXT 13 HOURS.

A. SOLAR ACTIVITY HAS REMAINED AT A RELATIVELY LOW LEVEL DURING THE
PAST 11 HOURS. ONLY CLASS C ACTIVITY HAS BEEN OBSERVED. FEW CHANGES
HAVE BEEN REPORTED IN ANY OF THE ACTIVE CENTERS PRESENTLY VISIBLE. A
HIGH MAGNETIC GRADIENT PROBABLY REMAINS AT THE EASTERN END OF THE
N18W78 REGION. SENSORS ABOARD THE ATS-1 SATELLITE CURRENTLY INDICATE
PROTON COUNTING RATES OF ABOUT 1000 PARTICLES/CM²/SEC AT 5-20 MEV AND
200 PARTICLES/CM²/SEC AT 20-70 MEV. ABSORPTIONS OF ABOUT 1.0 DB ARE
BEING REPORTED FROM THE THULE 30 MHZ RIOMETER, WHICH IS IN DARKNESS.
QUIET GEOMAGNETIC CONDITIONS HAVE PREVAILED DURING THE LAST 13 HOURS.

B. MAJOR ACTIVITY IS STILL POSSIBLE AT THE N18W78 SITE, BUT THE PROB-
ABILITY OF SUCH ACTIVITY IS SLOWLY DECREASING AS THE REGION DECAYS.
OCCASIONAL CLASS C FLARES AND INFREQUENT CLASS M FLARES ARE LIKELY AT
THE N18W78, S12W46, AND S12E44 CENTERS. A GEOMAGNETIC STORM IS EX-
PECTED TO BEGIN WITHIN THE NEXT SEVERAL HOURS. THE A-VALUE AT FREDER-
ICKSBURG FOR 27 JANUARY PROBABLY WILL BE BETWEEN 35 AND 70. ATS-1
PROTON COUNTING RATES ARE EXPECTED TO REMAIN ENHANCED FOR AT LEAST
THE NEXT 24 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR
PERIODS BEGINNING 27 JAN/0400Z ENDING 30 JAN/0400Z

CLASS M OR GREATER 80/80/70

CLASS X 20/15/10

PROTON EVENTS 20/15/10

D. OTTAWA 10.7 CM FLUXES FOR 26/1700Z AND 26/2000Z WERE 170 AND 169
RESPECTIVELY.

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FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 27B ISSUED 1700Z 27 JAN 1971

CLASS M FLARES EXPECTED IN THE NEXT 11 HOURS.

A. SOLAR FLARE ACTIVITY HAS BEEN LOW THE PAST 13 HOURS. A CLASS M3 FLARE, 1N/SN, LOCATION N08W44 OCCURRED AT 27/0542Z AND CAUSED MINOR IONOSPHERIC DISTURBANCES. LIMB ACTIVITY DUE TO PASSING REGIONS IS OCCURRING AT NW15 TO 20 AND NE 08 TO 14. THESE REGIONS APPEAR DYNAMIC; THE NE ONE HAS A E SPOT CLASSIFICATION WITH A PATCH OF MODERATELY BRIGHT PLAGE BETWEEN A DOUBLE LEADER AND TRAILER SPOTS. NEW REGIONS HAVE EMERGED AT N12W50, C TYPE SPOTS, AND A SMALL BIPOLAR REGION AT N19E03. A GEOMAGNETIC STORM BEGAN AT 27/0430Z WITH A SMALL SUDDEN COMMENCEMENT. THE A INDEX FOR 27 JAN SHOULD NOT EXCEED 40. THE STORM IS EXPECTED TO END IN 12-18 HRS FOLLOWED BY UNSETTLED CONDITIONS DUE TO A SECTOR PASSAGE.

B. SOLAR ACTIVITY IS EXPECTED TO BE DOMINATED BY THE NW AND NE LIMB REGIONS PRODUCING TWO OR THREE CLASS M FLARES/DAY. A CLASS X EVENT IS POSSIBLE BUT CHANCES ARE LESSENING AS THE NW REGION ROTATES OFF THE DISK.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 27 JAN/1700Z ENDING 27 JAN/1700Z.

CLASS M OR GREATER 90/90/80

CLASS X 20/15/10

PROTON EVENTS 20/15/10

D. OTTAWA 10.7 CM FLUX FOR 27/1400Z WAS 172. PREDICTED 10.7 CM FLUX FOR 28-30 JAN IS 172/172/172.

E. MAGNETIC A-FREDERICKSBURG FOR 26 JAN WAS 01. FOR 27 JAN ABOUT 35 PREDICTED AP FOR 28-30 JAN, 20/16/16.

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