

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO
SDF NUMBER 031A ISSUED 0400Z 31 JANUARY 1971
CLASS C FLARES AND PERHAPS ONE CLASS M FLARE ARE LIKELY DURING THE
NEXT 13 HOURS.

A. THE MOST SIGNIFICANT SOLAR EVENT REPORTED DURING THE PAST 11
HOURS CONSISTED OF A CLASS M3 ONE-BRILLIANT FLARE AT 31/0135Z IN THE
SLOWLY-DECAYING REGION AT S11W08. ONLY A FEW OTHER FLARES, ALL OF
THEM SMALL AND RELATIVELY NON-ENERGETIC, HAVE BEEN OBSERVED. SLIGHT
DEVELOPMENT HAS OCCURRED IN THE CENTRAL AND TRAILING PARTS OF THE
F/540 SPOT GROUP AT N08E28. ACCORDING TO THE MOUNT WILSON OBSERVA-
TORY, BOTH THE N08E28 AND S11W08 REGIONS ARE SIMPLE BIPOLAR STRUC-
TURES. SLIGHT DEVELOPMENT HAS TAKEN PLACE IN THE NEW C-TYPE GROUP AT
S20E67, AND AN H-TYPE SPOT IS VISIBLE AT S05E81. THE GEOMAGNETIC
FIELD HAS REMAINED IN AN UNSETTLED CONDITION DURING THE PAST 11
HOURS. PROTON COUNTING RATES ON THE ATS-1 SATELLITE HAVE DECREASED
TO ABOUT 10 PARTICLES/CM²/SEC AT 5-20 MEV AND 2 PARTICLES/CM²/SEC
AT 20-70 MEV.

B. LITTLE CHANGE FROM THE PRESENT LEVEL OF SOLAR ACTIVITY IS ANTICI-
PATED DURING THE NEXT THREE DAYS. OCCASIONAL CLASS C FLARES AND ONE
OR TWO SMALL CLASS M FLARES ARE LIKELY DURING EACH 24-HOUR PERIOD.
THE GEOMAGNETIC FIELD PROBABLY WILL REMAIN IN AN UNSETTLED CONDITION
FOR AT LEAST 24 HOURS. ATS-1 PROTON COUNTING RATES ARE EXPECTED TO
DECREASE SLOWLY.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR
PERIODS BEGINNING 31 JAN/0400Z ENDING 03 FEB/0400Z
CLASS M OR GREATER 80/80/80
CLASS X 10/10/10
PROTON EVENTS 05/05/05

D. OTTAWA 10.7 CM FLUXES FOR 30/1700Z AND 30/2000Z WERE 168 AND 171
RESPECTIVELY.
SOLTERWARN

TTTTT

KMSC

HAUS BOU 311700

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 031B ISSUED 1700Z 31 JAN 1971

CLASS M FLARE ANTICIPATED WITHIN 12 HOURS.

A. SOLAR ACTIVITY HAS INCREASED SINCE 31/0400Z WITH THE REGION NEAR S12W15 PRODUCING SMALL BUT BRIGHT FLARES ALMOST HOURLY. OTHER REGIONS (N06E20), (S20E65), (N05W05) HAVE BEEN QUIET. A MINOR GEOMAGNETIC STORM BEGAN AT 0850Z, WITH A SUDDEN COMMENCEMENT, ENDED ABOUT 1000Z. ATS-1 PROTON SENSORS ARE NEAR BACKGROUND.

B. CURRENT LEVEL OF ACTIVITY SHOULD DIMINISH WITHIN 24 HOURS WITH A FEW M FLARES FROM THE REGION IN SW QUAD. THE GEOMAGNETIC FIELD IS EXPECTED TO BE SLIGHTLY DISTURBED. NO RETURNING REGIONS ARE EXPECTED ON THE EAST LIMB.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 31 JAN/1700Z ENDING 03 FEB/1700Z.

CLASS M OR GREATER 85/85/80

CLASS X 10/10/10

PROTON EVENTS 05/05/05

D. OTTAWA 10.7 CM FLUX FOR 31/1400Z WAS 176. PREDICTED

10.7 CM FLUX FOR 01-03 FEB IS 171/170/168.

E. MAGNETIC A-FREDERICKSBRUG FOR 30 JAN WAS 20. FOR 31 JAN ABOUT 15. PREDICTED AP FOR 01-03 FEB, 15/12/08.

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