

UUV  
PP KGFF  
DE BOU 211800Z  
HERE IS THE MSG FOR REFILE

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO  
SDF NUMBER 227A ISSUED 1700Z MARCH 21 1969

CLASS X FLARES ARE EXPECTED DURING THE NEXT 12 HOURS.

A. HIGHLIGHTS FOR THE PERIOD 13-21 MARCH 1969 CLN AT THE BEGINNING OF THE PERIOD SOLAR ACTIVITY WAS DOMINATED BY A REGION NEAR N12 WHICH PRODUCED FIVE CLASS M EVENTS BEFORE COMPLETING WEST LIMB PASSAGE ON 13 MARCH. UPON LIMB PASSAGE OF THIS REGION, ATTENTION SHIFTED TO THE NE WHERE A GROUP OF RETURNING REGIONS, RESPONSIBLE FOR THE PROTON EVENTS OF 25 AND 28 FEBRUARY, BEGAN EAST LIMB PASSAGE. IT QUICKLY BECAME APPARENT THAT MAJOR DEVELOPMENT HAD OCCURRED IN THESE REGIONS, WHICH CURRENTLY EXTEND FROM N12 TO N21 IN LATITUDE AND FROM W30 TO E28 IN LONGITUDE. THE REGIONS ARE MOST IMPRESSIVE, THEY CONTAIN COMPLEX PLAGE STRUCTURE, AND HAVE SHOWN SIGNIFICANT SPOT GROWTH AND PROPER MOTIONS. THE REGION NOW AT N20E10 PRODUCED CLASS X FLARES AT 21/0142Z AND 21/1300Z BOTH OPTICALLY 2R. THESE WERE PRECEDED BY A SMALL CLASS X ON 18/0630Z, SIX CLASS M FLARES AND VERY FREQUENT SUBFLARES. 10 CM FLUX REACHED SOME OF THE HIGHEST LEVELS OF THE CYCLE BY 20 MARCH. LOW ENERGY PROTONS HAVE BEEN DETECTED BEGINNING 21/0515Z BUT NO HIGH ENERGY PROTONS ARE REPORTED AS OF 21/1500Z. MINOR ABSORPTION ON RIOMETERS AND PHASE SHIFTS OF HIGH LATITUDE VLF PATHS HAVE BEEN REPORTED. THE GEOMAGNETIC FIELD WAS SLIGHTLY DISTURBED 15-20 MARCH.

B. FORECAST FOR THE WEEK 22-28 MARCH 1969 CLN THE NORTHERN COMPLEX OF REGIONS SHOULD DOMINATE ACTIVITY DURING THE WEEK. WE EXPECT ADDITIONAL MAJOR EVENTS FROM THESE REGION BEFORE THEY COMPLETE WEST LIMB PASSAGE. A REGION NEAR S30E20 HAS SHOWN SIGNIFICANT SPOT GROWTH AND COULD PRODUCE CLASS M EVENTS IF ITS DEVELOPMENT CONTINUES. THE RETURN OF AN OLD CENTER OF ACTIVITY TO EAST LIMB AT S18 IS EXPECTED TOMORROW.

C. 28-DAY FORECAST FOR 22 MARCH-18 APRIL 1969 CLN SOLAR ACTIVITY IS EXPECTED TO BE ABOVE NORMAL THROUGH 30 MARCH. MINOR ACTIVITY ENHANCEMENT IS EXPECTED 10-16 APRIL.

D. DAILY FORECASTS FOR 22-24 MARCH AND EXPECTED MEAN FORECAST FOR 25-28 MARCH 1969 CLN

DAILY PERCENT PROBABILITIES FOR FLARES AND PROTON EVENTS  
CLASS M OR GREATER 90-92-90 . /90/

CLASS X 50-52-50 /50/

PROTON EVENTS 50-50-50 /50/

OTTAWA 10.7 CM FLUX TODAY IS 236. PREDICTED 210-210-200 /165/.

E. N/A

F. KP ESTIMATED FOR 1200-1500Z WAS 3. KP FORECAST FOR NEXT 24 HOURS PER KP 15.3; 3-3-3-3-3-3-3-3.

BT

NNNNUUUV  
PP KGFF  
DE BOU 212320Z  
HERE IS THE MSG FOR REFILE

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO  
SDF NUMBER 207B ISSUED 2300Z 21 MARCH 1969

CLASS X FLARES ARE EXPECTED IN THE NEXT 12 HOURS

A. CLASS M FLARES WERE REPORTED BOTH FROM THE RAPIDLY GROWING  
REGION AT S30E20 /BEGINNING 21/1540Z/ AND FROM THE MAJOR REGION  
AT N20E08 /BEGINNING 21/1941Z/. A CLASS C /OPTICAL IMPORTANCE  
1N/ WAS THE ONLY LARGE OPTICAL FLARE SINCE SDF 207A. THE  
REGIONS AT N20W02 AND N21E07 ARE REPORTED BUILDING PENUMBRA  
TOWARD EACH OTHER. SINCE THESE REGIONS ARE OF OPPOSITE POLARITY,  
IT IS INFERRED THAT MAGNETIC GRADIENTS ARE INCREASING IN THIS  
LOCATION. RAPID GROWTH IS REPORTED IN THE REGION CURRENTLY AT  
S30E16. THE LOW ENERGY PROTON FLUX REPORTED IN SDF 207A IS STILL  
INCREASING, BUT NO HIGH ENERGY INCREASES HAVE BEEN OBSERVED. THE  
GEOMAGNETIC FIELD IS MODERATELY QUIET.

PARTS B, C, D, AND F ARE UNCHANGED FROM SDF 207A.

E. MAGNETIC A-FREDERICKSBURG FOR 20 MAR WAS 17. FOR 21 MAR  
ABOUT 15. PREDICTED AP FOR 22-24 MAR 10/15/15.

SOLARWARN

BT