

KMSC  
PP KGFF  
DE BOU 220400Z  
THIS MESSAGE FOR REFILE

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO  
SDF NUMBER 422A ISSUED 0400Z 22 OCT 1969

CLASS M FLARES ARE EXPECTED DURING THE NEXT 13 HOURS.

A. THE LARGE, COMPLEX GROUP NEAR N11E53 CONTINUES TO REMAIN DORMANT.  
THIS STABILIZING PERIOD, CHARACTERISTIC OF SUCH ACTIVE CENTERS, IS  
EXPECTED TO END SOMETIME DURING THE NEXT 12 HOURS.

B. ALTHOUGH STRUCTURALLY THE REGION HAS CHANGED LITTLE SINCE THE  
LAST MESSAGE, POTENTIAL-ACTIVITY INDICES SUCH AS H-ALPHA FINE  
STRUCTURE, BACKGROUND FLUX AT 1-8 ANGSTROMS, AND THE 9.1CM BRIGHT-  
NESS TEMP REMAIN VERY FAVORABLE. A PCA EVENT APPEARS ALMOST A  
CERTAINTY WHEN ONE CONSIDERS THE PAST PROTON HISTORY OF THE N11E53  
REGIONS CARRINGTON LONGITUDE. REASONABLE LIMITS ON THE TIME OF THIS  
ANTICIPATED PARTICLE EVENT ARE FROM 1 TO 3 DAYS INCLUDING THE CURRENT  
ZULU DAY.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR  
PERIODS BEGINNING 22/0400Z ENDING 25/0400Z.

CLASS M OR GREATER 100/100/100

CLASS X 30/40/50

PROTON EVENTS 30/40/50

D. OTTAWA 10.7 CM FLUX 21/2000Z WAS 182.

BT

PP KGFF  
DE BOU 221700Z  
HERE IS THE MESSAGE FOR REFILE

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO  
SDF NUMBER 422B ISSUED 1700Z 22 OCTOBER 1969

CLASS M FLARES ARE EXPECTED DURING THE NEXT 11 HOURS

A. HIGHLIGHTS FOR THE PERIOD 15-21 OCTOBER 1969--

TWO REGIONS OF INTEREST, MCMATH NUMBERS 381 AND 385, ROTATED INTO VIEW ON 18 AND 20 OCT RESPECTIVELY. EVEN BEFORE THE TWO REGIONS WERE COMPLETELY VISIBLE, BACKSIDE MONITORING OF THE SOLAR DISK WITH THE PIONEER 6 AND 7 SPACECRAFTS AND CORONAL LINE EMISSION HELPED TO ESTABLISH THEIR RELATIVE DEVELOPMENT STAGES. THE FIRST OF THESE CENTERS IS NOW LOCATED NEAR N10E24 AND IS MAGNETICALLY A SIMPLE BIPOLAR. THE MAJORITY OF ACTIVITY HAS BEEN CONCENTRATED WITHIN REGION 385 NOW A F/850 SPOT GROUP CENTERED NEAR N11E45. IMPORTANCE 2 SURGES AND SPRAYS ACCOMPANIED THE 36 HOURS REQUIRED FOR THE GROUP TO CLEAR THE LIMB. DURING THE PERIOD 19-20 OCTOBER, EIGHT CLASS M EVENTS WERE RECORDED; TWO OF THESE STRONG X-RAY BURSTS MAY HAVE BEEN ASSOCIATED WITH FLARES JUST OVER THE LIMB, AS NO PLAGE BRIGHTENINGS WERE OBSERVED. OVERALL, THIS ACTIVE REGION IS BIPOLAR WITH THE MASSIVE LEADER CONTAINING AT LEAST TWO DELTA CONFIGURATIONS. RADIO BRIGHTNESS TEMPERATURES /AT 3.6MM AND 9.1CM/ ARE GREATLY ENHANCED ABOVE THEIR RESPECTIVE BACKGROUND LEVELS.

B. FORECAST FOR THE PERIOD 23-29 OCTOBER 1969--

CONSIDERING THE PROTON HISTORY OF REGION 385'S CARRINGTON LONGITUDE OVER THE PAST 9 1/2 MONTHS, A PCA EVENT IS LIKELY TO OCCUR FROM A FLARE IN THIS REGION. A PREVIOUSLY ACTIVE REGION, WHICH WAS ALSO ACTIVE ON THE INVISIBLE DISK, SHOULD RETURN EARLY ON 27 OCTOBER AT N18E1.

28 DAY FORECAST FOR 23 OCTOBER-19 NOVEMBER 1969--

SOLAR ACTIVITY WILL REMAIN ENHANCED THROUGHOUT THE PERIOD.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 22/1700Z ENDING 25/1700Z.

CLASS M OR GREATER 90/90/90

CLASS X 40/45/50

PROTON EVENTS 40/45/50

D. OTTAWA 10.7 CM FLUX AT 1400Z WAS 187. PREDICTED 192/198/202.

E. MAGNETIC A FREDERICKSBURG FOR 210 OCT WAS 06. FOR 22 OCT ABOUT 09. PREDICTED AP FOR 23-25 OCT 10/15/20.

F. KP ESTIMATED FOR 1200-1500Z WAS 2. KP FORECAST FOR NEXT 24 HOURS PER KP 15.3; 2/2/2/2/2/2/2/2.

SOLTERWARN

BT