

NNNNUUU

P KGPF

DE BOU 230500Z

THIS IS THE MESSAGE FOR REFILE

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SPACE DISTURBANCE FORECAST NUMBER 537C ISSUED AT 0500Z

MAY 23 1967

DURING NEXT 12 HOURS BOTH COMMENCEMENT OF EXPECTED MAGSTORM AND

MAJOR FLARES FROM REGION LOCATED AT N26E31 ARE LIKELY.

BT

NNNNUUUV

PP KGFF

DE BOU 231100Z

THIS IS THE MSG FOR REFILE

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SPACE DISTURBANCE FORECAST NUMBER 537D ISSUED AT 1100Z

MAY 23 1967

MAJOR FLARES LIKELY DURING THE NEXT 12 HOURS.

THE LULL OF THE PAST 34 HOURS CONTINUES WITH ONLY SUBFLARES
REPORTED. HOWEVER, THE POTENTIAL PROTON REGION AT N13E31 REMAINS
CAPABLE OF MAJOR FLARE ACTIVITY. A MODERATE MAGNETIC STORM
IS EXPECTED.

BT

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO
SPACE DISTURBANCE FORECAST NUMBER ~~537A~~ ISSUED AT 1700Z
MAY 23 1967 538A

A PROTON FLARE IS EXPECTED WITHIN THE NEXT 12 HOURS

A. THE LULL IN MAJOR FLARE PRODUCTION FROM THE VERY COMPLICATED
NORTHEASTERN REGION HAS CONTINUED FOR MORE THAN 40 HOURS.
DURING THIS TIME ONLY MINOR FLARES HAVE BEEN NOTED. THE
REGION CONTINUES TO BE VERY INTERESTING AS OBSERVED BY
ALL TECHNIQUES. THE PORTION OF THE CLUSTER OF SPOTS
LOCATED AT N25 E26 HAS GROWN SIGNIFICANTLY IN AREA AND
IS F/1640. A STRONG DELTA CONFIGURATION PERSISTS THERE
AND THE HYDROGEN AND CALCIUM PLAGE IS EXTREMELY BRIGHT.
CONTINUUM SOLAR RADIO EMISSION BECAME ENHANCED AT 1530Z
TODAY.

B. A MAJOR FLARE IS CONSIDERED TO BE IMMINENT FROM
THE NORTHEAST REGION JUDGING FROM OPTICAL AND SOLAR
RADIO EMISSION FEATURES OF THE REGION. THE PROBABILITY
IS VERY HIGH THAT SUCH A FLARE WILL PRODUCE PROTONS.

C. THE PROBABILITIES FOR FLARES AND PROTON EVENTS FOR THE
THREE DAY PERIOD MAY 24-26 ARE AS FOLLOWS /FIGURES ARE
PERCENTAGES FOR EACH OF THE THREE DAYS/

IMPORTANCE ONE OR GREATER 100/100/100

IMPORTANCE TWO OR GREATER 90/90/90

IMPORTANCE THREE OR GREATER 60/60/60

PROTON EVENTS 70/70/70

D. THE OTTAWA 10.7 CM FLUX TODAY IS ESTIMATED TO BE 190.

THE PREDICTED VALUES FOR MAY 24-26 ARE 198/204/208

BT

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO
SPACE DISTURBANCE FORECAST NUMBER 538B ISSUED AT 2300Z
MAY 23 1967

SOLAR PROTONS ARE EXPECTED DURING THE NEXT 12 HOURS.
ADDITIONAL MAJOR FLARES ARE LIKELY.

A. THREE MAJOR FLARES OCCURRED AT 1808Z 1836Z AND 1936Z.
ALL WERE LOCATED OVER AREAS OF HIGH MAGNETIC FIELD GRADIENTS
IN THE F-TYPE GROUP AT N27 E30. WHITE LIGHT EMISSION WAS
OBSERVED 1844Z-1845Z ADJACENT TO THE WEST EDGE OF THE
LARGEST PENUMBRA. THE FLARES WERE RATED AS 3 BRIGHT/3
EXTREMELY BRIGHT/AND 2 BRIGHT. IONOSPHERIC EFFECTS FROM
THE FLARES WERE GREAT AND INCLUDED FAILURE OR SEVERE DEPRES-
SION OF HF/SHORTWAVE/CIRCUITS ON SUNLIT RADIO PATHS. SOLAR
RADIO EMISSION FROM THE FLARES WAS VERY STRONG AND INCLUDED
TYPE 4 EMISSION WHICH WAS STILL IN PROGRESS AT 2250Z.

B. PROTONS ARE EXPECTED FROM THE FLARES REPORTED ABOVE.
ADDITIONAL MAJOR FLARES ARE EXPECTED. FOLLOWING SUCH IN-
TENSE ACTIVITY TODAY A LULL IN FLARE PRODUCTION WOULD NOT
BE SURPRISING.

C. THE PROBABILITIES FOR FLARES AND PROTON EVENTS FOR THE
THREE DAY PERIOD MAY 24-26 ARE AS FOLLOWS /FIGURES ARE
PERCENTAGES FOR EACH OF THE THREE DAYS/
IMPORTANCE ONE OR GREATER 100/100/100
IMPORTANCE TWO OR GREATER 90/90/90
IMPORTANCE THREE OR GREATER 60/60/60
PROTON EVENTS 90/80/70

D. THE OTTAWA 10.7 CM FLUX TODAY IS 190. THE PREDICTED
VALUES FOR MAY 24-26 ARE 198/204/206

E. THE FREDERICKSBURG MAGNETIC A INDEX FOR YESTERDAY WAS 3.
TODAY IT WILL BE ABOUT 9. THE PREDICTED AP RANGES ARE
40-60/40-60/25-35 FOR MAY 24-26