

NNNNUU0350

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KMSC

HAUS BOU 200400Z

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 632A ISSUED 0400Z 20 MAY 1970

NO CLASS M FLARES ARE EXPECTED DURING THE NEXT 13 HOURS.

A. CLASS C FLARES (PEAK 1-8A X-RAY FLUX LESS THAN 10 TO THE MINUS 2 ERGS/CM2/SEC) OCCURRING AT A RATE OF ABOUT 1 OR 2 PER HOUR FROM THE LARGE NW CENTER ESSENTIALLY CHARACTERIZE THE CURRENT STATE OF THE DISK. SPECIFIC GROWTH OR DECAY WITHIN ANY OF THE 10 SPOT GROUPS VISIBLE HAS BEEN MINOR SINCE YESTERDAY'S SECOND MESSAGE.

B. ENERGETIC FLARES ARE EXPECTED FROM THE N17W22 REGION, HOWEVER IT IS ANTICIPATED THAT THESE EVENTS WILL NOT BEGIN THERE BEFORE 22 MAY. ATTENTION SHOULD BE CALLED TO THE RECENT DEVELOPMENT NEAR S15W69. A SHORT BUT ENERGETIC FLARE PHASE AS THIS REGION APPROACHES THE LIMB MIGHT WELL PRODUCE THE GEOPHYSICAL EFFECTS BELIEVED INEVITABLE FROM THE NW CENTER.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 20 MAY/0400Z ENDING 23 MAY/0400Z

CLASS M OR GREATER 75/80/90

CLASS X 15/20/30

PROTON EVENTS 05/10/20

D. OTTAWA 10.7 CM FLUXES FOR 19/1700Z AND 2000Z WERE 193 AND 191 RESPECTIVELY.

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FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO
SDF NUMBER 632B ISSUED 1700Z 20 MAY 1970

A LOW LEVEL OF NONENERGETIC FLARES EXPECTED IN THE NEXT 11 HOURS.

A. HIGHLIGHTS FOR THE PERIOD 13-20 MAY 1970--

TWO OF THE LARGEST AND MOST COMPLEX DISK FEATURES WITNESSED THIS YEAR /MCMATH REGIONS 740 AND 743/ DOMINATED THE SOLAR DISK THE PAST WEEK. REGION 740 /CURRENTLY NEAR S11W75, L305/ WAS BY FAR THE MORE ACTIVE, PRODUCING 16 ENERGETIC FLARES TO DATE, ALL OF THEM CLASS M EVENTS. OPTICALLY NONE OF THESE EVENTS EXCEEDED IMPORTANCE 1B, AND SIGNIFICANT GEOPHYSICAL EFFECTS WERE CONFINED TO IONOSPHERIC DISTURBANCES. REGION 740 DEVELOPED RAPIDLY AFTER BEING BORN ON THE VISIBLE DISK ON 10 MAY, AND HAS SHOWN A SYMMETRIC DEVELOPMENT CURVE WHICH PEAKED ON 15 MAY WITH A SPOT AREA OF 1000 MILLIONTHS /APPROXIMATELY 3 TIMES THE EARTH'S SURFACE AREA/. ITS FLARE PRODUCTION ALSO PEAKED ON 15 MAY WITH A TOTAL OF 8 CLASS M EVENTS. REGION 743 /CURRENTLY NEAR N16W29, L257/ HAS PRODUCED ONLY 4 CLASS M EVENTS SINCE APPEARING AT EAST LIMB ON 11 MAY, THE MOST RECENT OF THESE EVENTS BEING ON 12 MAY. THIS REGION HAS SHOWN A SYMMETRIC BUT DOUBLE-PEAKED DEVELOPMENT CURVE, WITH THE LARGER OF ITS MAXIMA OCCURRING ON 16 MAY WITH A SPOT AREA OF 1500 MILLIONTHS. AT PRESENT 740 IS APPROACHING WEST LIMB AND LESS THAN 200 MILLIONTHS IN SPOT AREA WHILE 743 IS ABOUT 30 DEGREES PAST CENTRAL MERIDIAN AND SHOWING DEFINITE SIGNS OF DECAY. THE GEO-MAGNETIC FIELD HAS BEEN RELATIVELY QUIET.

B. FORECAST FOR THE WEEK 21-27 MAY 1970--

THE LEVEL OF ACTIVITY IS EXPECTED TO BE DOWN FROM THE PAST WEEK BUT STILL SOMEWHAT ABOVE AVERAGE. ALTHOUGH IT HAS BEEN DORMANT FOR SEVERAL DAYS, REGION 743 IS EXPECTED TO PRODUCE ADDITIONAL ENERGETIC FLARES BEFORE IT CROSSES THE WEST LIMB. A LOW LEVEL OF ACTIVITY IS EXPECTED FOLLOWING WEST LIMB PASSAGE OF THIS REGION.

28-DAY FORECAST FOR THE PERIOD 21 MAY-18 JUNE 1970--

A PERIOD OF ENHANCED SOLAR ACTIVITY IS EXPECTED FOR THE FIRST TWO WEEKS IN JUNE.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 20 MAY/1700Z ENDING 22 MAY/1700Z.

CLASS M OR GREATER 50/50/40

CLASS X 05/05/05

PROTON EVENTS 05/05/05

D. OTTAWA 10.7 CM FLUX 1400Z WAS 179. PREDICTED 175/170/160.

E. MAGNETIC A-FREDERICKSBURG FOR 19 MAY WAS 07. FOR 20 MAY ABOUT 10. PREDICTED AP FOR 21-23 MAY 06/06/06.

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