

NNNN0350

NNNN

KMSC

HAUS BOU 220400Z

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 604A ISSUED 0400Z 22 APR 1970

NON-ENERGETIC FLARES ARE EXPECTED DURING THE NEXT 13 HOURS.

A. ALTHOUGH ACTIVITY ON THE DISK THESE PAST 24 HOURS HAS BEEN SPARSE, THE MAGNETIC DISTURBANCE BEGINNING 20/1123Z HAS SINCE THE LAST MESSAGE DEVELOPED INTO A MAJOR STORM (A SUB P GREATER THAN 50). ON THE DEEP RIVER NEUTRON MONITOR COUNTING RATES WERE DEPRESSED ABOUT 4 PERCENT PRIOR TO THE SC AS A RESULT OF EARLIER MAGNETIC ACTIVITY. MOREOVER, DURING THE 7 HOURS THAT FOLLOWED, THE COUNTS/10-MINUTE INTERVAL ACTUALLY BEGAN RECOVERING. COSMIC RAY SHIELDING EFFECTS FOR THE CURRENT DISTURBANCE REACHED A MAXIMUM ABOUT 15 HOURS 37 MINUTES INTO STORM TIME (21/0300Z) - A VALUE DOWN NEARLY 6.5 PERCENT FROM TYPICAL QUIET DAYS.

B. THE GEOMAGNETIC FIELD WILL CONTINUE TO BE DISTURBED, BUT AT A SUBSTORM LEVEL, THROUGHOUT THE 22ND. K-INDICES ARE EXPECTED TO RETURN TO NORMAL BY 23 APR.

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

CLASS M OR GREATER 30/25/20

CLASS X 02/02/02

PROTON EVENTS 01/01/01

D. OTTAWA 10.7 CM FLUX FOR 21/1700Z WAS 125.

SOLTERWARN

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NNNNU1730

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KMSC

HAUS BOU 221710Z

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 604B ISSUED 1700Z 22 APRIL 1970

ONLY CLASS C FLARE ACTIVITY IS ANTICIPATED DURING THE NEXT 11 HOURS

A. HIGHLIGHTS FOR THE PERIOD 15-22 APRIL 1970--

M AND X FLARE TOTALS FOR THE PAST WEEK STAND AT 7 AND 1 RESPECTIVELY.

/FOR A DISCUSSION OF THE 15/0407Z X EVENT ITSELF SEE PREVIOUS WEEKLY SUMMARY./ MCMATH REGION 675, HAVING ROTATED FROM VIEW ON 17-18 APRIL, PRODUCED 5 OF THESE M FLARES; THE REMAINING 2 OCCURRED WITHIN AN EXTREMELY SHORT-LIVED REGION, MCMATH 679 - A DISK FEATURE THAT HAS SINCE DISAPPEARED.

A STRICTLY LOW-ENERGY PCA EVENT FOLLOWED THE X FLARE MENTIONED ABOVE BY 39.5 HOURS. RIOMETER ABSORPTION AT ITS MAXIMUM WAS ONLY OF THE ORDER OF 1 DB. THE PERIOD OF THIS PCA AS OBSERVED BY ANCHORAGE WAS BETWEEN 16/1930Z AND 16/2300Z.

THE SAME X ERUPTION WAS VERY LIKELY RESPONSIBLE IN TOTO OR AT LEAST IN PART FOR THE SUBSTORM LEVEL MAGNETIC ACTIVITY OBSERVED 17-19 APRIL.

SUBSEQUENT MAJOR STORM DEVELOPMENT DURING THE NEXT 2 DAYS SHOULD

PROBABLY BE RELATED TO 675'S POST-WEST LIMB ACTIVITY. EVIDENCE,

ALBEIT MEAGER, EXISTS IN THE FORM OF AN M X-RAY EVENT WITHOUT OPTICAL

COUNTERPART AT 19/1819Z AND A SUBSEQUENT SURGE AT NW10 AT 19/1855Z.

THE SC WAS RECORDED AT 20/1122Z, BUT NOT UNTIL APPROXIMATELY 12 HOURS

LATER DID THE STORM INTENSIFY. YESTERDAY'S A-INDEX FOR FREDERICKSBURG

WAS ABOUT 54. SIGHTINGS OF AURORAL DISPLAYS IN THE WESTERN HEMISPHERE

WERE NO DOUBT SEVERELY LIMITED DUE TO THE UNFAVORABLE TIME OF DAY UNDER

WHICH THE LARGEST K-INDICES WERE RECORDED.

AT PRESENT 8 SMALL SPOT GROUPS DOT THE DISK WITH THE LARGEST HAVING

AN AREA JUST OVER 200 MILLIONTHS. NO M FLARES HAVE BEEN OBSERVED FOR

3 DAYS; SPORADIC CLASS C EVENTS CHARACTERIZE CURRENT ACTIVITY.

B. FORECAST FOR THE WEEK OF 23-29 APRIL 1970--

RANDOM ENERGETIC FLARES AND NUMEROUS BUT UNIMPRESSIVE SPOT GROUPS

ARE EXPECTED THESE NEXT SEVEN DAYS.

28-DAY FORECAST FOR THE PERIOD 23 APRIL-21 MAY 1970--

ANOTHER PERIOD OF ENHANCED SOLAR ACTIVITY SHOULD BE WITNESSED THE

FIRST WEEK IN MAY.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24

HOURLY PERIODS BEGINNING 22 APRIL/1700Z ENDING 25 APRIL/1700Z.

CLASS M OR GREATER 30/30/30

CLASS X 02/02/02

PROTON EVENTS 01/01/01

D. OTTAWA 10.7 CM FLUX AT 1400Z WAS 123. PREDICTED 130/132/134.

E. MAGNETIC A-FREDERICKSBURG FOR 21 APRIL WAS 54. FOR 22 APRIL

ABOUT 35. PREDICTED AP FOR 23-25 APRIL 12/10/08.

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