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KMSC

HAUS BOU 010400Z

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 583A ISSUED 0400Z 01 APRIL 1970

M EVENTS ARE EXPECTED FROM REGIONS JUST INSIDE THE SE LIMB DURING THE NEXT 13 HOURS.

A. THE NUMBER OF FLARES REPORTED YESTERDAY TOTALED TEN. ONLY ONE OF THESE-AN IMPORTANCE 1B FLARE BEGINNING ABOUT 31/1801Z-WAS SUFFICIENTLY ENERGETIC TO BE CLASSIFIED AN M. THE FLARE OCCURRED NEAR S11E43 WITHIN A PLAGE CONTAINING NO SPOT GROUP. PROTON DETECTORS ABOARD THE ATS-1 AND VELA SATELLITES INDICATE CONTINUED DECAY OF THE MINOR POLCAP ABSORPTION IN EFFECT FOR THE PAST 3 DAYS. PARTICLE FLUXES ARE NOW BELOW THAT REQUIRED FOR MEASUREABLE GROUND-BASED ABSORPTION. THE 31/0530Z MAGNETIC DISTURBANCE REPORTED IN THE PREVIOUS MESSAGE HAS ABOUT COME TO AN END. ITS MAGNITUDE WAS A BORDERLINE CASE BETWEEN THE STORM AND SUBSTORM LEVELS. A RELATIVELY LARGE FORBUSH DECREASE HAS ACCOMPANIED THIS DISTURBANCE. CURRENT NEUTRON COUNTING RATES AT THE DEEP RIVER, ONTARIO, SITE ARE DEPRESSED ROUGHLY 6 PERCENT.

B. ADDITIONAL ACTIVE REGIONS ARE EXPECTED TO ROTATE INTO VIEW ALONG THE EL IN THE NEXT 12 TO 24 HOURS. M-FLARE ACTIVITY SHOULD INCREASE ALMOST MONOTONICALLY THESE NEXT 3 DAYS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 01 APR/0400Z ENDING 04 APR/0400Z

CLASS M OR GREATER 70/80/90

CLASS X 05/10/20

PROTON EVENTS 10/10/10

D. OTTAWA 10.7 CM FLUXES FOR 31/1700 AND 2000Z WERE 150 AND 153 RESPECTIVELY.

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HAUS BOU 011700Z

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 583B ISSUED 1700Z 01 APRIL 1970

CLASS M FLARES ARE PROBABLE DURING THE NEXT 11 HOURS

A. HIGHLIGHTS FOR THE PERIOD 25 MARCH-01 APRIL 1970--

REGIONS NEAR N04W09 AND N14W37, AS OF 01/1700Z, PRODUCED ONE AND TWO X EVENTS RESPECTIVELY DURING THE PAST EIGHT DAYS. 1 THE FORMER /MCMATH REGION 652/ APPEARED AT THE NE LIMB ABOUT MIDDAY 25 MARCH AND GENERATED A MOST UNUSUAL SPRAY-LIKE BSD/BSL STARTING ABOUT 25/2003Z. 2 NUMBER 652 IS CURRENTLY OF CLASS/AREA D/200. 3 THE N14W37 GROUP REPRESENTED THE SECOND TRANSIT OF THE NOW WELL-DOCUMENTED MCMATH 595. 4 AN APPARENTLY NEW GROUP HAS BEEN VISIBLE THESE PAST 12 DAYS AT THIS LONGITUDE OF 595, WITH ITS DISTINCTIVE CIRCULAR FILAMENT ALMOST COMPLETELY ENCLOSING IT, REACHED A MAXIMUM IN CLASS/AREA D/530 ON THE 26TH. IT ERUPTED TWICE AT THE X LEVEL--AN IMPORTANCE 1B FLARE, START TIME 25/1203Z, POSITION N14E09 AND A 2B EVENT, START TIME 29/0011Z, POSITION N12W38. THE LATTER FLARE WAS FOLLOWED BY MINOR PCA APPROXIMATELY 3.5 HOURS LATER. MAXIMUM 30 MHZ RIOMETER ABSORPTIONS WERE OF THE ORDER OF 2DB ALONG ESSA'S ALASKAN CHAIN. AS REGION 595 /RECLASSIFIED BY MCMATH AS 641/ ASSUMED A POSITION OF ONE DAY WEST OF CM, A SMALL SC WAS RECORDED AT 27/0657Z. THIS MAGNETIC DISTURBANCE DID NOT REACH STORM PROPORTIONS, BUT DID EFFECTIVELY CONTINUE UNTIL A SECOND SC OF ABOUT 54 GAMMAS OCCURRED ON BOULDER'S H TRACE. WHAT FOLLOWED WAS A MINOR 19-HOUR STORM /A OF 32/. THIS SECOND DISTURBANCE HAS BEEN ACCOMPANIED BY A RELATIVELY LARGE FORBUSH DECREASE. THE DEEP RIVER NEUTRON MONITOR IS CURRENTLY SIX PERCENT BELOW ITS QUIET-DAY RESPONSE. TWO D-TYPE SPOT GROUPS ROTATED OVER THE EL NEAR S12 AND S14 YESTERDAY. HOWEVER, SURGE ACTIVITY WAS MINOR AND INFREQUENT THERE, IN SHARP CONTRAST TO THE LIMB ERUPTIONS WITNESSED FROM NW10 THROUGH NW15 AS 641 /595/ BEGAN TO PASS FROM VIEW.

B. FORECAST FOR THE WEEK 02-08 APRIL 1970--

PIONEER 6 AND 7 - SPACECRAFT IN HELIOCENTRIC ORBITS ABOUT SIX AND 30 DEGREES RESPECTIVELY BEHIND THE EL - HAVE DETECTED SUBSTANTIAL HIGH-ENERGY COSMIC RAY ENHANCEMENTS SINCE LATE ON THE 29TH. THESE DATA IMPLY CARRING-LONGITUDE 070 IS AGAIN THE SEAT OF MAJOR ACTIVITY. A SEQUENCE OF GEOPHYSICAL EVENTS SIMILAR TO THE PAST WEEK, BUT NO DOUBT MORE ENERGETIC, IS EXPECTED TO BEGIN LATE IN THE FORECAST PERIOD. THE NUMBER OF M AND X EVENTS SHOULD EXCEED LAST WEEK'S TOTALS OF 6 AND 13 RESPECTIVELY.

28-DAY FORECAST FOR THE PERIOD 02-30 APRIL 1970--

THE SECOND WEEK OF APRIL IS ANTICIPATED TO BE THE NEXT PERIOD OF ENHANCED SOLAR ACTIVITY.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 01/1700Z ENDING 04/1700Z.

CLASS M OR GREATER 80/90/90

CLASS X 15/20/20

PROTON EVENTS 10/10/10

D. OTTAWA 10.7CM FLUX TODAY IS 159. PREDICTED 164/168/170.

E. MAGNETIC A-FREDERICKSBURG FOR 31 MARCH WAS 32. FOR 01 APRIL ABOUT 05. PREDICTED AP FOR 02-04 APRIL 10/10/08.

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