

HAUS BOU 040420Z

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO

SDF NUMBER 5274 ISSUED 0400Z 04 FEB 70

NO ACTIVITY ABOVE CLASS C FLARES IS EXPECTED DURING THE NEXT
13 HOURS.

A. LITTLE IN THE WAY OF ACTIVITY HAS BEEN OBSERVED SINCE THE
LAST FORECAST. THOSE REGIONS CURRENTLY VISIBLE ARE SMALL. AND
UNIMPRESSIVE. NO SIGNIFICANT FLUCTUATIONS ARE OCCURRING IN THE
GEOMAGNETIC FIELD.

B. SAME AS PREVIOUS MESSAGE.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24
HOUR PERIODS BEGINNING 04 FEB/0400Z ENDING 07 FEB/0400Z.

CLASS M OR GREATER 25/25/20

CLASS X 01/01/01

PROTON EVENTS 01/01/01

D. OTTAWA 10.7 CM FLUXES FOR 03/1700 AND 2000Z WERE 127 AND 128
RESPECTIVELY

SOLTERWARN

SPAN

BT

FROM SPACE DISTURBANCE FORECAST CENTER ESSA BOULDER COLO
SDF NUMBER 527B ISSUED 1700Z 04 FEBRUARY 1970

ONLY CLASS C FLARES ARE EXPECTED DURING THE NEXT 11 HOURS

A. HIGHLIGHTS FOR THE PERIOD 28 JANUARY - 04 FEBRUARY 1970--
MCMATH REGION 542 /NOW OFF THE DISK/ WAS UNQUESTIONABLY THE
MOST ACTIVE CENTER FOR THE PAST EIGHT DAYS, GENERATING THREE
DISTINCT SOLAR COSMIC RAY ENHANCEMENTS AT SATELLITE ALTITUDES
WITH ONE BARELY DISCERNABLE ON THE GROUND. THE SPOT GROUP WAS
BORN ON THE DISK 24 JANUARY NEAR S13E20 /L293/. FIVE DAYS
LATER IT HAD GROWN TO A MODEST CLASS/AREA OF E/740 AND CONTAINED
A MAGNETIC DELTA CONFIGURATION IN ITS FOLLOWER. ACTIVITY BEGAN
ON THE 28TH WITH SIX CLASS M FLARES FOLLOWED BY AN X /2B/ AT
1910Z. THIS PARTICULAR EVENT HAD ASSOCIATED WITH IT THE LARGEST
RADIO BURST OF THE PERIOD - ONE OF 2700 FLUX UNITS AT 5000 MHZ.
THE ATS-1 SATELLITE RECORDED A VERY SMALL PARTICLE ENHANCEMENT
ABOUT THREE HOURS AFTER THE FLARE. THE 29TH WAS CHARACTERIZED
BY FOUR MORE TYPE M FLARES, A SLIGHT ENHANCEMENT OF SATELLITE
PROTON COUNTING RATES, AND A GRADUAL DECLINE IN DEEP RIVER'S
NEUTRON MONITOR COUNTING RATE. /A MAXIMUM DEPRESSION OF FOUR PERCENT
IN COUNTS/10 MIN WAS IN EFFECT DURING THE 30/0300-0600Z PERIOD./
ON 31 JANUARY THE MOST SEVERE OUTBURST IN TERMS OF GEOPHYSICAL
EFFECTS BEGAN ABOUT 1505Z AS A CLASS M /2B/ FLARE OF NEARLY THREE
HOURS DURATION. ALASKAN GROUND-BASED PROTON DETECTION BEGAN
AN HOUR TO TWO AND ONE HALF HOURS LATER. FIRST ON THE 12.3 KHZ
ALDRA, NORWAY VLF PATH /SIGNAL DROP OF ABOUT 5 DB/ AND SECONDLY
THROUGH A 0.5 DB ABSORPTION ON ANCHORAGE'S 23 MHZ FORWARD SCATTER
CIRCUIT. ATS-1 RECORDED ITS HIGHEST FLUXES AS A RESULT OF THIS
EVENT. THE 20-70 MEV WINDOW PEAKED NEAR 160 PARTICLES/CM2/SEC
/31/2100Z/ WHILE THE 5-20 MEV CHANNEL MAXIMIZED NEAR 570 /01/0500Z/.
THE CENTER CONTINUED FLARING AS IT PASSED OVER THE WEST LIMB 01
FEBRUARY. FINAL CLASS X AND M FLARES BEGAN AT 02/2150Z AND 03/1025Z
RESPECTIVELY. THE FORMER WAS OBSERVED AS A BRIGHT MOUND NEAR S20;
THE LATTER WAS NOT VISIBLE. SINCE YESTERDAY THE NUMBER OF FLARES
HAS DECLINED SHARPLY. THERE ARE AT PRESENT EIGHT SMALL, APPARENTLY
STABLE SPOT GROUPS VISIBLE. SURPRISINGLY TH TOTALITY OF ACTIVITY
DESCRIBED HAD AN ALMOST NEGLIGIBLE EFFECT IN THE GEOMAGNETIC FIELD.
A RATHER ILL-DEFINED SC WAS CALLED AT 30/1620Z, HOWEVER NO REAL STORM
FOLLOWED.

B. FORECAST FOR THE PERIOD 05-11 FEBRUARY 1970--

THE MOST ACTIVE CARRINGTON LONGITUDES DURING 1969 IN TERMS OF
PROTON EVENTS HAS BEEN THE SECTOR NEAR 070. THIS IS DUE TO RETURN
FEBRUARY 06 AND IS EXPECTED TO BE ACTIVE THE LATTER HALF OF ITS
PASSAGE - ACTIVE BY VIRTUE OF ITS INACTIVITY THE LAST TWO ROTATIONS.
28-DAY FORECAST FOR THE PERIOD 11 FEBRUARY - 04 MARCH 1970--
12-16 FEBRUARY SHOULD BE THE NEXT INTERVAL OF ABOVE AVERAGE FLARE
PRODUCTION.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24
HOUR PERIODS BEGINNING 04/1700Z ENDING 07/1700Z.

CLASS M OR GREATER 20/20/20

CLASS X 01/01/01

PROTON EVENTS 01/01/01

D. OTTAWA 10.7CM FLUX AT 1400Z WAS 122. PREDICTED 120/125/130.

E. MAGNETIC A-FREDERICKSBURG FOR 03 FEB WAS 06. FOR 04 FEB ABOUT

06. PREDICTED AP FOR 05-07 FEB 06/06/08.
SOLTERWARN