

NNNN0001

NNNN

KMSC

HAUS BOU 300000

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SESC-PRF 008 30 DECEMBER 1970

HIGHLIGHTS FOR THE PERIOD 23-29 DECEMBER 1970--

SOLAR ACTIVITY WAS AT AN EXTREMELY LOW LEVEL THROUGHOUT THE PAST SEVEN DAYS. ONE CLASS M5 WEST LIMB EVENT WAS OBSERVED FROM MCMATH REGION 084 /N18L290/ AT 26/0840Z. ALTHOUGH THE X-RAY BURST WAS OF M5 INTENSITY ITS TOTAL DURATION WAS ONLY ABOUT 10 MINUTES. THE ASSOCIATED RADIO BURST WAS ABOUT 75 FLUX UNITS AT 2700MHZ. A MINOR SUDDEN IONOSPHERIC DISTURBANCE WAS REPORTED. A SMALL SATELLITE LEVEL PROTON ENHANCEMENT BEGAN AT 24/0740Z. THE PEAK FLUXES OBSERVED BY ATS-1 OCCURRED AT 24/2200Z AND WERE OF THE ORDER OF 40 /5-21 MEV/ AND EIGHT /21-70 MEV/ PARTICLES PER SQ CM PER SEC. WE DO NOT KNOW THE SPECIFIC CAUSE OF THIS PROTON ENHANCEMENT; THE NEAREST ENERGETIC EVENTS WERE THE CLASS M9 /22-1516X/ AND M6 /22/1245Z/ EVENTS NEAR N22W44 IN REGION 084. THE PARTICLE ENHANCEMENT MAY HAVE RESULTED FROM CORONAL STORAGE OF PARTICLES ENERGIZED BY THE ABOVE EVENTS OR FROM AN EVENT BEHIND THE WEST LIMB. THE FLUXES ARE STILL VERY SLIGHTLY ENHANCED AS OF 29/1700Z. THE GEOMAGNETIC FIELD WAS RELATIVELY QUIET THROUGHOUT THE PERIOD.

FORECAST FOR 31 DECEMBER 1970-06 JANUARY 1971--

SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT A LOW LEVEL UNTIL 01 JANUARY 1971. THEREAFTER ACTIVITY MAY INCREASE TO A MODERATE LEVEL AS LONGITUDES FROM 000 TO 040 BEGIN TO RETURN TO THE VISIBLE DISK. THESE LONGITUDES WERE ACTIVE DURING THEIR LAST DISK PASSAGE. A SECTOR BOUNDARY TYPE GEOMAGNETIC DISTURBANCE IS POSSIBLE ON 30-31 DECEMBER.

FORECAST FOR 31 DECEMBER 1970-23 JANUARY 1971--

A MODERATE LEVEL OF ACTIVITY IS EXPECTED DURING THE FIRST TWO WEEKS OF JANUARY.

SOLTERWARN

SPAN

BT

KMSC

HAUS BOU 3004#0

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO

SDF NUMBER 856A ISSUED 0400Z 30 DECEMBER 1970

INFREQUENT CLASS C FLARES ARE ANTICIPATED DURING THE NEXT 13 HOURS.

A. SOLAR ACTIVITY HAS CONTINUED AT A LOW LEVEL DURING THE PAST 11 HOURS. ONLY A FEW CLASS C SUBFLARES FROM THE REGION AT S14W28 HAVE BEEN REPORTED. ALTHOUGH ALL THE ACTIVE CENTERS ON THE DISK ARE RELATIVELY UNIMPRESSIVE, THE TWO-DAY-OLD S14W28 REGION IS DEVELOPING AND IS THE MOST INTERESTING DISK FEATURE. ATS-1 PROTON COUNTING RATES ARE STILL ENHANCED AT 5 PARTICLES/CM²/SEC AT 5-21 MEV AND 1 PARTICLE/CM²/SEC AT 21-70 MEV. PROTON COUNTING RATES AT PIONEER 6, 7 AND 8 SATELLITES ALSO REMAIN SIGNIFICANTLY ENHANCED. THE GEOMAGNETIC FIELD HAS EXHIBITED UNSETTLED CONDITIONS DURING THE PAST 11 HOURS.

B. SPORADIC CLASS C FLARES ARE ANTICIPATED DURING THE NEXT THREE DAYS. ENERGETIC ACTIVITY IS NOT LIKELY UNLESS RAPID DEVELOPMENT OF THE S14W28 REGION CONTINUES. THE GEOMAGNETIC FIELD IS EXPECTED TO DISPLAY CONTINUED UNSETTLED BEHAVIOR FOR THE NEXT 48 HOURS.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS BEGINNING 30 DEC/0400Z ENDING 02 JAN/0400Z

CLASS M OR GREATER 25/30/30

CLASS X 01/01/01

PROTON EVENTS 01/01/01

D. OTTAWA 10.7 CM FLUXES FOR 29/1700Z AND 29/2000Z WERE BOTH 128.

SOLTERWARN

SPAN

BT

NNNN1657
NNNN1657
NNNN1658
NNNN1658
NNNN1659
NNNN
KMSC

HAUS BOU 301700

FROM SPACE DISTURBANCE FORECAST CENTER BOULDER COLO
SDF NUMBER 856B ISSUED 1700Z 30 DEC 1970

INCREASED NUMBER OF CLASS C EVENTS EXPECTED IN NEXT 12 HOURS.

A. SOLAR ACTIVITY IS SLOWLY INCREASING YET THE INTENSITY OF
THE FLARES REMAINS LOW. SPOT GROWTH IN THE REGIONS NEAR
S13W35 AND N10W15 APPEAR TO BE SIGNIFICANT, AND INDICATIVE
OF INCREASING COMPLEXITY AND PROBABLE FLARE ACTIVITY.

THE GEOMAGNETIC FIELD HAS BEEN QUIET. ATS-1 PROTON SENSORS
HAVE RETURNED TO NEAR BACKGROUND LEVELS.

B. INCREASED NUMBER AND INTENSITY IN FLARES EXPECTED BEGINNING
ABOUT 01 JAN 71 WITH BOTH REGIONS MENTIONED ABOVE BECOMING
MORE ACTIVE. SO FAR THERE IS NO INDICATION OF A RETURNING
ACTIVE REGION NEAR 15N.

C. FLARE AND PROTON EVENT PROBABILITIES FOR THE NEXT THREE
24 HOUR PERIODS BEGINNING 30 DEC/1700Z ENDING 02 JAN/1700Z.

CLASS M OR GREATER 35/70/30

CLASS X 01/02/02

PROTON EVENTS 01/01/01

D. OTTAWA 10.7 CM FLUX FOR 30/1400Z WAS 133. PREDICTED
10.7 CM FLUX FOR 31 DEC-02 JAN IS 135/138/140.

E. MAGNETIC A-FREDERICKSBURG FOR 29 DEC WAS 08. FOR 30 DEC
ABOUT 12. PREDICTED AP FOR 31 DEC-02 JAN, 10/10/12.

SOLTERWARN

SPAN

BT