

HFUS BOU 170650  
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO  
SDE/ NUMBER 351A ISSUED 0500Z 17 DEC 1971  
SUPPLEMENTARY MESSAGE.

A. A MINOR MAGNETIC STORM AND A PROTON EVENT ARE IN PROGRESS.  
A S.S.C. OCCURRED AT 16/1900Z. K AT BOULDER WAS TENTATIVELY 5 FOR  
17/0000Z-0300Z AND 6 FOR 17/0300Z-0600Z. THE PARTICLE EVENT WAS  
IN PROGRESS WHEN ATS 1 WAS TURNED ON AT 17/0400Z. PARTICLE FLUX  
WAS 1000 PARTICLES/CM2-SEC ON THE 5-21 MEV CHANNEL /ABOUT 400 TIMES  
BACKGROUND/ AND 5 PARTICLES/CM2-SEC ON THE 21-70 MEV CHANNEL /ABOUT  
10 TIMES BACKGROUND/ AT 17/0420Z. THULE 30 MHZ RIOMETER ABORPTION  
WAS ABOUT 0.5-1.0 DB AT 17/0600Z /NIGHTTIME VALUES/.

B. BOTH EVENTS ARE EXPECTED TO LAST THROUGH TODAY. K MAXIMUM  
OF 6 OR 7 EXPECTED. MAXIMUM PROTON FLUX HAS PROBABLY PASSED FOR  
10 MEV PARTICLES.

C, D, NO CHANGE.

E. MAGNETIC A-FREDERICKSBURG FOR 15 DEC WAS 02. FOR 16 DEC  
ABOUT 03. PREDICTED AP FOR 17-19 DEC ARE 35/20/15.

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HFUS BOU 172200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 351B ISSUED 2200Z 17 DEC 1971

A MAGNETIC STORM, FORBUSH DECREASE AND LOW ENERGY PARTICLE  
EVENT ARE IN PROGRESS.

A. THESE ARE APPARENTLY DELAYED EVENTS WITH INDEFINITE SOURCES.  
A SECOND SSC OCCURRED AT 17/1418Z WITH DEVIATIONS OF 16 AND 40  
GAMMAS ON THE H AND D TRACES RESPECTIVELY AT BOULDER. MAIN  
PHASE ONSET WAS ABOUT 17/1713Z. TENTATIVE BOULDER K FOR 17/  
1500-1800Z WAS 6. THE DEEP RIVER NEUTRON MONITOR WAS DEPRESSED  
ABOUT 6.5 PERCENT AT 17/2010Z. ATS 1 GEOSTATIONARY SATELLITE  
PROTON COUNTING RATES AT 17/1420Z WERE 2000 PARTICLES/CM2-SEC  
FOR THE 5-21 MEV DETECTOR /ABOUT 1000 TIMES BACKGROUND/ AND 8  
PAR/CM2-SEC ON THE 21-70 MEV CHANNEL /ABOUT 16 TIMES BACKGROUND/.  
A LARGE PROBABLY ENERGETIC EVENT WAS OBSERVED ON 14 DEC AT EAST  
LIMB-SEE SDF 348 FOR 14/2200Z. OTHERWISE ONLY SMALL CLASS M  
FLARES HAVE BEEN RECORDED- MOST RECENTLY IN REGIONS 384 /N09E32/  
AND 388 /S15E64/.

B. MORE CLASS M FLARES ARE LIKELY FROM SEVERAL DISK REGIONS.  
A LARGE REGION /OLD 354/ IS DUE TO RETURN AT SE15 IN THE NEXT 24  
HOURS AND MAY EMIT MAJOR ACTIVITY. THE MAGNETIC STORM AND PAR-  
TICLE EVENT ARE EXPECTED TO SLOWLY DECAY OVER THE NEXT 24 TO 48  
HOURS BUT WITH UNSETTLED TO ACTIVE MAGNETIC FIELD CONDITIONS FOR  
THE NEXT 7 TO 10 DAYS.

C. EVENT PROBABILITIES FOR THE NEXT THREE 24 HOUR PERIODS  
BEGINNING 18 DEC/0000Z ENDING 20 DEC/2400Z.

CLASS M OR GREATER 60/65/65

CLASS X 10/10/05

PROTON EVENT 10/10/10

D. OTTAWA 10.7CM FLUXES FOR 17/1400Z 1700Z AND 2000Z WERE  
135, 134 AND 135. PREDICTED 10.7CM FLUXES FOR 18-20 DEC  
ARE 137/138/139.

E. MAGNETIC A-FREDERICKSBURG FOR 16 DEC WAS 05. FOR 17 DEC  
ABOUT 35. PREDICTED AP FOR 18-20 DEC ARE 25/20/18.

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