

HFUS 1 BOU 162200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER CO

SDF NUMBER 320

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 16 NOVEMBER 1978

IA. SOLAR ACTIVITY HAS BEEN LOW THE PAST 24 HOURS. ONLY A FEW  
MINOR SUBFLARES AND C CLASS X-RAY EVENTS HAVE BEEN REPORTED.  
NEW REGION 1404 (S23E52) IS A B-TYPE GROUP AND SHOWS SIGNS OF  
RAPID GROWTH. NEW REGION 1405 (S28E74) IS AN H-TYPE GROUP AND  
HAS PRODUCED SOME SMALL OPTICAL SUBFLARES ALTHOUGH NO ASSOCIATED  
X-RAY EVENTS WERE REPORTED. REMAINING REGIONS HAVE BEEN  
GENERALLY QUIET.

IB. SOLAR ACTIVITY IS EXPECTED TO BE LOW DURING THE NEXT 24 HOURS.  
REGION 1385 (N19W92) IS A MINOR THREAT OF ENERGETIC EVENTS FROM  
BEHIND THE LIMB. REGION 1404 COULD BECOME THE NEXT CENTER OF  
ACTIVITY IF PRESENT GROWTH TRENDS CONTINUE.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET THE PAST 24 HOURS. PRE-  
DOMINATELY QUIET CONDITIONS WITH A FEW UNSETTLED PERIODS ARE  
EXPECTED THROUGH THE FORECAST PERIOD.

III. EVENT PROBABILITIES 17 NOVEMBER - 19 NOVEMBER

CLASS M 20/20/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 16 NOVEMBER 132

PREDICTED 17-19 NOVEMBER 132/133/133

90-DAY MEAN 16 NOVEMBER 153

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 15 NOVEMBER 06

ESTIMATED AFR/AP 16 NOVEMBER 05/06

PREDICTED AFR/AP 17-19 NOVEMBER 07/08 - 07/08 - 07/12

SOLTERWARN

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SDF NUMBER 320

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 16 NOVEMBER 1979

IA. SOLAR ACTIVITY HAS BEEN MODERATE FOR THE PAST 24 HOURS OWING TO AN M3 (ESTIMATED)/IB FLARE FROM REGION 2110 (N32W45) WHICH MAXED AT 15/2145 UT (YESTERDAY). THIS EVENT PRODUCED A TYPE II RADIO BURST AND WAS A TENFLARE (810 FU AT 2695 MHZ, DURATION 36 MINUTES). OTHER FLARE ACTIVITY (C-CLASS SUBFLARES) OCCURRED PRIMARILY NEAR REGION 2119 (N31W02). A NEW D-TYPE GROUP (2133, N32, E05) GREW RAPIDLY NORTH EAST OF 2119 AND THERE IS EVIDENCE OF SPOT DEVELOPMENT SOUTH OF 2119. REGION 2124 (S32W07) DEVELOPED SIGNIFICANTLY AND IS NOW OF BETA-GAMMA MAGNETIC COMPLEXITY. TWO OTHER NEW REGIONS WERE NUMBERED TODAY. THEY ARE 2132 (N35W31), AN A-TYPE GROUP, AND 2134 (S19E80), A SURGING REGION ON THE EAST LIMB NEAR THE LOCATION OF RETURNING REGION 2074.

IB. SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS THROUGHOUT THE FORECAST PERIOD. INCREASED DEVELOPMENT IS REQUIRED TO RAISE THE PROBABILITY OF MAJOR EVENTS ALTHOUGH ISOLATED X-FLARE ACTIVITY IS POSSIBLE.

II. THE GEOMAGNETIC FIELD HAS BEEN GENERALLY UNSETTLED WITH SOME PERIODS OF ACTIVE CONDITIONS. A SATELLITE PROTON EVENT BEGAN NOV 16/0430 UT, REACHED A MAXIMUM OF 75 PROTONS/CM2-STER-SEC OF GREATER THAN 10 MEV ENERGIES AT 1300 UT AND HAS DECLINED TO NEAR THRESHOLD LEVELS AT FORECAST TIME. A POLAR CAP ABSORPTION EVENT OF 3 DB (MAXIMUM) BEGAN AT APPROXIMATELY 1100 UT AND CONTINUES IN PROGRESS. THE PARTICLE EVENTS ARE EXPECTED TO END IN THE NEXT FEW HOURS. THE GEOMAGNETIC FIELD SHOULD BE UNSETTLED TO ACTIVE TOMORROW IN RESPONSE TO THE M3/IB FLARE, BUT WILL DECLINE THERE AFTER.

III. EVENT PROBABILITIES 17 NOVEMBER - 19 NOVEMBER

CLASS M 60/60/60

CLASS X 05/05/05

PROTON 05/05/05

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 16 NOV 235

PREDICTED 17-19 NOV 228/222/216

90-DAY MEAN 16 NOV 220

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 15 NOVEMBER 02

ESTIMATED AFR/AP 16 NOVEMBER 10/11

PREDICTED AFR/AP 17-19 NOVEMBER 15/10 08/15 06/15

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