

HFUS 01 BOU 2322 00

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER CO.

SDF NUMBER 397

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 23/2200Z DECEMBER 1978

IA. SOLAR ACTIVITY HAS BEEN LOW TO MODERATE WITH C-CLASS SUNFLARES  
REPORTED FROM THE FOLLOWING REGIONS : REG 1459 (S22W71) ; (1465  
(N12E25) ; @1470 (N17W60). OTHER REGIONS THAT HAVE SHOWN SLIGHT  
GROWTH TODAY AND ALSO CONTAIN SPOTS ARE : REG 1469 (S28W70)-1  
SPOT , REG 1471 (N20E12)-3 SPOTS AND REG 1472 (N27E66)-1 SPOT .  
SURGING AT SE20 HAS BEEN OBSERVED DURING MOST OF THE FORECAST  
PERIOD . ALL OTHER DISK AND LIMB FEATURES ARE REPORTED TO BE  
QUIET AND STABLE .

IB. SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT PRESENT LOW TO  
MODERATE LEVELS WITH THE INCREASING PROBABILITY OF SIGNIFICANT  
EVENTS FROM RETURNING REGIONS NOW ON THE SE LIMB .

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED AND IS EXPECTED TO  
BE QUIET TO SLIGHTLY UNSETTLED DURING THE FORECAST PERIOD .

III. EVENT PROBABILITIES 24-26 DECEMBER

CLASS M : 01/15/20

CLASS X : 01/01/01

PROTON : 01/01/01

PCAF : GREEN

IV. OTTAWA (10.7 CM FLUX)

OBSERVED 23 DECEMBER 138

PREDICTED 24-26 DECEMBER 138/142/146

90-DAY MEAN 23 DECEMBER 161

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 22 DECEMBER 15

ESTIMATED AFR/AP 23 DECEMBER 09/10

PREDICTED AFR/AP 24-26 DECEMBER 06/06 - 06/06 - 06/06

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HFUS 1 BOU 232200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 357

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200E 2 DECEMBER 1979

I. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS.  
REGION 2200 (S07W74) PRODUCED TWO M-CLASS X-RAY BURSTS. THE FIRST,  
AN M1 AT 0443Z MAXIMUM WAS ASSOCIATED WITH A IN OPTICAL FLARE AND  
HAD SHORT WAVE FADES REPORTED. AN M1 BURST WITH MAXIMUM AT 0727Z  
WAS CORRELATED TO REGION 2200 WITH A SUBFAINT FLARE OBSERVED BY  
MANILA AFTER MAXIMUM. THIS REGION COULD POSSIBLY BE RE-DEVELOPING  
WITH ARCH FILAMENTS REPORTED AND A NEUTRAL LINE INCREASING IN COM-  
PLEXITY. REGION 2204 (S16W20) HAS PRODUCED ONLY ONE OPTICAL  
FLARE, A SUBFAINT AT 0443Z MAXIMUM, HOWEVER MANY SMALL X-RAY BURSTS  
OC CURRING EARLY IN THE DAY COULD NOT BE CORRELATED OPTICALLY DUE  
TO WEATHER. NEW REGION 2210 (S20W54) HAS EMERGED AS A SIMPLE B-TYPE  
GROUP.

II. SOLAR ACTIVITY SHOULD CONTINUE AT MODERATE LEVELS. REGION  
2200 HAS THE POTENTIAL FOR ANOTHER M-CLASS EVENT PRIOR TO LIMB  
TRANSIT. REGION 2204 IS NOW DUE FOR AN ISOLATED LARGE FLARE.  
REGIONS 2207 (S12E27) AND 2208 (S14E35) APPEAR TO BE INTERACTING  
WITH A TIGHT GRADIENT SEEN BETWEEN 2207'S TRAILING SPOT AND 2208'S  
LEADING SPOT. M-CLASS FLARE ACTIVITY COULD OCCUR IN THIS LOCATION.

III. THE GEOMAGNETIC FIELD HAS BEEN QUIET SINCE THE START OF THE  
ZULU DAY. QUIET TO OCCASIONALLY UNSETLED CONDITIONS ARE EXPECTED  
UNTIL THE 26TH, WHEN A WEAK SECTOR BOUNDARY WILL CAUSE SLIGHTLY  
DISTURBED CONDITIONS.

III. EVENT PROBABILITIES 24 DECEMBER - 26 DECEMBER

CLASS M 70/70/70

CLASS X 20/20/20

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 23 DEC 174

PREDICTED 24-26 DEC 171/168/174

90-DAY MEAN 23 DEC 223

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 22 DECEMBER 14

ESTIMATED AFR/AP 23 DECEMBER 05/06

PREDICTED AFR/AP 24-26 DECEMBER 07/08 07/08 10/12

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