

HFUS 1 BOU 182200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 291

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 18 OCTOBER 1978

IA. SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. ONLY MINOR C-CLASS X-RAY EVENTS WERE OBSERVED WHICH WERE ASSOCIATED WITH SUBFLARES IN REGIONS 1340 (N21W59), 1346 (S21W66), 1351 (N31E19), AND 1355 (N29E71). REGION 1340 DEVELOPED CONSIDERABLY IN SIZE, SUNSPOT NUMBER AND MAGNETIC COMPLEXITY, AND 1357 (N33E65) IS NOW A B-TYPE GROUP. ALL OTHER REGIONS REMAINED STABLE OR SIMPLIFIED. TWO NEW REGIONS WERE IDENTIFIED, 1358 (N36E53) WHICH IS A B-TYPE GROUP, AND 1359 (N33E65) WHICH IS A SINGLE SPOT ABOVE REGION 1355.

IB. SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE FOR THE NEXT 24 HOURS. REGIONS 1346, 1348 (S22W28), 1351, 1355, AND 1340 ARE ALL SUFFICIENTLY COMPLEX THAT AN ENERGETIC EVENT COULD OCCUR. REGION 1340 IS IN A FAVORABLE LOCATION FOR GEOEFFECTS FROM PROTONS ASSOCIATED WITH A LARGE FLARE.

II. THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST 24 HOURS. A MINOR GEOMAGNETIC STORM BEGAN 18 OCTOBER 0425 UT. THIS STORM HAS SUBSIDED BUT THE GEOMAGNETIC FIELD SHOULD BE UNSETTLED FOR THE NEXT 48 HOURS, INCREASING SOMEWHAT FOR THE FOLLOWING PERIOD OWING TO A WEAK CORONAL HOLE NOW LOCATED AT N20W15.

III. EVENT PROBABILITIES 19 OCTOBER - 21 OCTOBER

CLASS M 60/60/60

CLASS X 20/20/20

PROTON 20/20/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 OCTOBER 171

PREDICTED 19-21 OCTOBER 168/166/164

90-DAY MEAN 18 OCTOBER 139

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 17 OCTOBER 04

ESTIMATED AFR/AP 18 OCTOBER 19/26

PREDICTED AFR/AP 19-21 OCTOBER 10/20 - 10/12 - 15/15

SOLTERWARN

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JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 18 OCTOBER 1979

IA. SOLAR ACTIVITY HAS BEEN MODERATE. THOUGH NUMBEROUS SUBFLARES  
HAVE BEEN REPORTED TODAY, THE NUMBER OF ENERGETIC X-RAY BURSTS  
HAS DECREASED SINCE THE 17TH. REGION 2058 (N27E24) PRODUCED A M1/SB  
AT 0901Z. MINOR METRIC BURSTS ACCCOMPANIED THIS FLARE. REGION  
2049 (N31W20) PRODUCED A C9/SB AT 0235Z. REGION 2060 (S17W13)  
PRODUCED A SN AT 0351Z WITH CULGOORA REPORTING A TYPE II DE KAMETRIC  
BURST WITH THIS FLARE. REGION 2058 CONTINUES ITS SUNSPOT GROWTH  
AND CONTAINS TWO DELTA CONFIGURATIONS. REGION 2049 HAS STABILIZED  
ITS GROWTH BUT STILL RETAINS A DELTA CONFIGURATION. REGIONS 2045  
(N28W40); 2064 (S09E50); AND 2066 (S11E66) HAVE VARYING DEGREES OF  
MAGNETIC COMPLEXITY. THESE THREE REGIONS AND REGIONS 2049 AND 2058  
SHOULD PRODUCE MOST OF THE FLARES OVER THE FORECAST PERIOD.

IB. SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE WITH REGIONS 2049  
AND 2058 PRODUCING MOST OF THE CLASS M ACTIVITY.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET. GENERALLY UNSETTLED  
CONDITIONS ARE EXPECTED FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 19 - 21 OCT

CLASS M 90/90/90

CLASS X 30/30/30

PREDICTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 OCT 239

PREDICTED 19 - 21 OCT 242/244/245

90-DAY MEAN 18 OCT 190

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 17 OCT 03

ESTIMATED AFR/AP 18 OCT 03/06

PREDICTED AFR/AP 19 - 21 OCT 08/12 08/08 10/15

SOLTERWARN

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