

HFUS 1 BOU 232200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SOF NUMBER 266

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

IA. SOLAR ACTIVITY WAS MODERATE TO HIGH DURING THE PAST 24 HOURS.  
REGION 1294 (N35W54) PRODUCED AN X1/3B FLARE WHICH BEGAN NEAR  
23/0947Z AND ENDED AFTER 1030Z. THE FLARE WAS ACCOMPANIED BY A  
TYPE IV SWEEP FREQUENCY BURST AND A 1300 F.U. BURST AT 2695 MHZ  
AS WELL AS PRODUCING STRONG SWFS. THE FLARE COVERED MOST OF THE  
REGION WITH PARALLEL RIBBONS. OTHER REGIONS, INCLUDING THREE NEW  
DISK REGIONS, WERE RELATIVELY QUIET.

IB. SOLAR ACTIVITY IS EXPECTED TO BE GENERALLY MODERATE DURING THE  
NEXT 24 HOURS. OCCASIONAL M-CLASS X-RAY EVENTS AND ISOLATED  
X-CLASS EVENTS ARE POSSIBLE.

II. THE GEOMAGNETIC FIELD WAS SLIGHTLY UNSETTLED DURING THE  
PAST 24 HOURS. THE FLARE MENTIONED IN PART IA PRODUCED A SATELLITE  
LEVEL PROTON EVENT WHICH BEGAN NEAR 23/1035Z. THE GREATER THAN  
10 MEV PROTON FLUX (P/CM2/SEC/STER) WAS ABOVE 1400 AND STILL RISING  
AT 2130Z. IN ADDITION, A PCA EVENT IS IN PROGRESS (BEGAN NEAR  
23/1245Z) WITH 7.6 DB ABSORPTION BEING OBSERVED AT 23/2130Z. THE  
THULE NEUTRON MONITOR INDICATED A GROUND LEVEL EVENT WHICH BEGAN  
NEAR 23/1030Z, MAXED AT 23/1145Z (11 PERCENT ABOVE BACKGROUND  
LEVEL), AND ENDED NEAR 23/1600Z. THE GEOMAGNETIC FIELD IS EXPECTED  
TO BE UNSETTLED TO ACTIVE UNTIL 25 SEPTEMBER WHEN A FLARE-INDUCED  
MINOR STORM IS EXPECTED TO BEGIN.

III. EVENT PROBABILITIES 24 SEPTEMBER - 26 SEPTEMBER

CLASS M	75/70/60
CLASS X	25/10/05
PROTON	30/20/05
PCA	IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED	23 SEPTEMBER 170
PREDICTED	24-26 SEPTEMBER 170/165/160
90-DAY MEAN	23 SEPTEMBER 136

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG	22 SEPTEMBER 11
ESTIMATED AFR/AP	23 SEPTEMBER 10/10
PREDICTED AFR/AP	24-26 SEPTEMBER 20/20 - 20/30 - 25/30

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SDF NUMBER 266

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 23 SEPT 1979

IA. SOLAR ACTIVITY HAS BEEN AT A MODERATE LEVEL THE PAST 24 HOURS WITH M1 FLARES FROM REGION 1994 (N05W21) AT 23/0205Z AND 23/0623Z BEING THE LARGEST EVENTS OBSERVED. REGION 1994 IS FRAGMENTING AND HAS APPARENTLY LOST ITS DELTA, HOWEVER, IT STILL RETAINS THE POTENTIAL FOR MAJOR FLARE ACTIVITY. SIX NEW REGIONS HAVE APPEARED TODAY. REGION 2015 (S24E59), 2016 (N22E70) AND 2017 (N18E71) HAVE ROTATED ON TO THE DISK, AND APPEAR STABLE. ADDITIONAL REGIONS MAY BE IN THE AREA OF 2016 AND 2017 OR DUE TO ROTATE ON THE DISK. REGIONS 2012 (N22W19), 2013 (N10E35) AND 2014 (S12E34) ARE NEW WITH REGION 2012 GROWING RAPIDLY. SPOTS HAVE AGAIN APPEARED IN REGIONS 1997 (N12W51), AND RAPID GROWTH IS OCCURRING IN REGIONS 2006 (N19E44) AND 2009 (S14E20). REGION 1999 (S13W02) PRODUCED A C8/1B AT 23/1636Z.

IB. SOLAR ACTIVITY IS EXPECTED TO BE HIGH. REGION 1994 THOUGH DECAYING IS STILL CAPABLE OF ENERGETIC ACTIVITY AND SHOULD BE MONITERED FOR REJUVENATION. CONTINUED GROWTH IN REGIONS 2009, 2012, 1997, AND 2006, COULD ALSO RESULT IN AN INCREASE IN ACTIVITY.

II. THE GEOMAGNETIC FIELD HAS BEEN GENERALLY QUIET THE PAST 24 HOURS, THE EXPECTED DISTURBANCE HAS NOT ARRIVED AND IS NO LONGER EXPECTED. CONDITIONS ARE LIKELY TO BE UNSETTLED THRU MOST OF THE FORECAST PERIOD. AN INCREASE IN ACTIVITY IS POSSIBLE NEAR THE END OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 24 SEPT - 26 SEPT

CLASS M 90/80/70

CLASS X 60/50/40

PROTON 60/50/40

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 23 SEPT 225

PREDICTED 24 SEPT - 26 SEPT 213/215/213

90-DAY MEAN 23 SEPT 176

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 22 SEPT 05

ESTIMATED AFR/AP 23 SEPT 05/03

PREDICTED AFR/AP 24 SEPT - 26 SEPT 15/15 12/15 20/30

SOLTERWARN