

HFUS 1 BOU 242200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 267

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 24 SEPTEMBER 1978

IA. SOLAR ACTIVITY WAS MODERATE DURING THE PAST 24 HOURS. THE LARGEST FLARE OBSERVED WAS AN M1 X-RAY FLARE (IB OPTICALLY) REACHING MAXIMUM IN REGION 1301 (N25W13) AT 24/1728Z. THIS FLARE HAD WEAK PARALLEL RIBBONS. MODERATE STRENGTH TYPE II AND TYPE IV SWEEP EVENTS WERE NOTED ALONG WITH THIS FLARE; AS WELL AS SHORT-WAVE FADES ON NUMEROUS FREQUENCIES. A C6/SB FLARE WAS NOTED IN REGION 1297 (S23W41) WITH A MAXIMUM AT 2111Z. ANOTHER DOZEN OR SO SMALL C-CLASS FLARES WERE NOTED IN X-RAYS, WITH VERY FEW OPTICAL REPORTS.

IB. SOLAR ACTIVITY IS EXPECTED TO CONTINUE GENERALLY MODERATE DURING THE NEXT 24 HOURS. THE POTENTIAL STILL EXISTS FOR OCCASIONAL M-CLASS FLARES AND EVEN AN ISOLATED X-CLASS X-RAY FLARE.

II. THE X1 FLARE OF 23/0941Z PRODUCED A PROTON EVENT WHICH WAS STILL IN PROGRESS AT THE TIME OF THIS REPORT. THE PROTON EVENT MAXIMUM WAS ABOUT 24/0400Z WITH 2200 P/CM2/SEC/STER IN THE GREATER THAN 10 MEV RANGE. THE COUNT WAS DOWN TO 1800 AT 24/2200Z. THE PCA PRODUCED BY THIS FLARE CONTINUED TODAY. THE MAXIMUM ABSORPTION ON THE THULE 30 MHZ RIOMETER WAS 9.6 DB AT 24/1800Z. ABSORPTION HAD FALLEN TO ABOUT 6 DB AT THE TIME THIS MESSAGE WAS PREPARED. THE GEOMAGNETIC FIELD HAS BEEN QUIET TO MILDLY UNSETTLED. THE FIELD IS EXPECTED TO REMAIN THAT WAY UNTIL SOME-TIME LATE ON 25 SEPTEMBER, WHEN PLASMA IS EXPECTED TO ARRIVE AT EARTH FROM THE FLARE OF THE 23RD. A SHORT LIVED (2 DAYS) MINOR GEOMAGNETIC STORM IS EXPECTED TO DEVELOP AT THAT TIME.

III. EVENT PROBABILITIES 25 SEPTEMBER - 27 SEPTEMBER

CLASS M	70/60/50
CLASS X	20/10/05
PROTON	20/10/05
PCA	IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED	24 SEPTEMBER	158
PREDICTED	25-27 SEPTEMBER	156/154/154
90-DAY MEAN	24 SEPTEMBER	135

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG	23 SEPTEMBER	10
ESTIMATED AFR/AP	24 SEPTEMBER	09/10
PREDICTED AFR/AP	25-27 SEPTEMBER	25/30 - 25/30 - 20/30

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FPCW SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

REF NUMBER 267

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 24 SEPTEMBER 1979

Ia. SOLAR ACTIVITY HAS BEEN MODERATE TO LOW DURING THE PAST 24 HOURS. MORE THAN HALF THE DOZEN OR SO FLARES OBSERVED DURING THAT TIME HAVE OCCURRED IN REGION 1994 (N05W34) WHICH HAS CLEARLY DECAYED SINCE YESTERDAY BUT CONTINUES TO HAVE A DELTA CONFIGURATION. A NUMBER OF THE SUBFLARES SEEN IN REGION 1994 OCCURRED AHEAD OF THE MAJOR LEADER SPOT BETWEEN THE REGION AND REGION 2008 (N08W40) INDICATING POSSIBLE INTERACTION OF THE TWO REGIONS. THE LARGEST FLARE OBSERVED DURING THE PAST 24 HOURS WAS AN M1 BURST (IN OPTICALLY) FROM REGION 1994 WITH A MAXIMUM AT 24/0510Z. THIS FLARE WAS ACCOMPANIED BY MINIMAL PACIC BURSTS AND IONOSPHERIC EFFECTS.

Ip. SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH. REGIONS OFTEN PRODUCE THEIR STRONGEST FLARES DURING RAPID GROWTH OR DECAY PHASES. ALTHOUGH THE REGION IS NOT CURRENTLY VERY FLARE PRODUCTIVE IT DOES STILL HAVE THE CAPACITY FOR AT LEAST ONE MORE MAJOR FLARE EFFORT IF IT SWINGS OUT OF SIGHT OVER THE WEST LIMP. OTHER REGIONS ON THE DISK MAY PRODUCE OCCASIONAL FLARES BUT NONE SEEM TO POSE A THREAT OF MAJOR FLARES AT THE MOMENT.

II. THE GEOMAGNETIC FIELD HAS BEEN MILDLY UNSETTLED DURING THE PAST 24 HOURS. THE FIELD IS EXPECTED TO BE UNSETTLED DURING THE NEXT 24 HOURS. THEN, ACTIVE TO MINOR GEOMAGNETIC STORM CONDITIONS CAN BE EXPECTED WHICH SHOULD LAST FOR ABOUT TWO DAYS.

III. EVENT PROBABILITIES 25 SEPTEMBER 27 SEPTEMBER

CLASS M 80/70/65

CLASS X 50/40/30

PROTON 50/40/30

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 24 SEPTEMBER 228

PREDICTED 25-27 SEPTEMBER 205/224/221

TODAY MEAN 24 SEPTEMBER 177

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSPURG 23 SEPTEMBER 05

ESTIMATED APR/AP 24 SEPTEMBER 08/13

PREDICTED APR/AP 25-27 SEPTEMBER 12/15 20/30 18/30

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