

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 (1B 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

SOLTERWARN

BT

NNNN

2325

HFUS1 BOU 242200

FPCW SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

REF NUMBEP 267

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

IS. 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 SOME SINCE
YESTERDAY BUT CONTINUES TO HAVE A DELTA CONFIGURATION. A NUMBER OF
THE SURFLARES 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
RADIO 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
IT SWINGS OUT OF SIGHT OVER THE WEST LIMB. 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 2527 SEPTEMBER 205/224/221

TODAY MEAN 24 SEPTEMBER 177

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSPURG 23 SEPTEMBER 05

ESTIMATED AFR/AP 24 SEPTEMBER 08/13

PREDICTED AFR/AP 2527 SEPTEMBER 12/15 20/30 18/30

SOLTERWARN

BT