

HFUS 1 BOU 102200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SOF NUMBER 041

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 10 FEBRUARY 1980

IA. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. THREE M-CLASS X-RAY BURSTS HAVE BEEN OBSERVED DURING THAT TIME. THE FIRST, FROM REGION 2281 (N08E74) WITH AN M1 MAXIMUM AT 10/1043Z HAD NO FIRM OPTICAL REPORT. THEN, REGION 2276 (S12W05) PRODUCED AN M2/2B FLARE IN ITS TRAILER SPOTS (ALSO INVOLVING REGION 2278 (S12E13) TO SOME EXTENT.). THIS SECOND M-FLARE REACHED MAXIMUM AT 1535Z AND WAS ACCOMPANIED BY SMALL DISCRETE FREQUENCY RADIO BURSTS AT CENTIMETRIC WAVELENGTHS AND MODERATE SID'S. THIS ACTIVITY MAY HERALD THE EMERGENCE OF A NEW GROUP BETWEEN REGIONS 2276 AND 2278. FINALLY, ANOTHER M1 BURST WAS SEEN IN REGION 2281 WITH A MAXIMUM AT 2027Z. THIS SB FLARE WAS ACCOMPANIED BY BOTH BRIGHT AND DARK SURGES, BUT LITTLE IN THE WAY OF SID RESPONSE.

IB. SOLAR ACTIVITY IS EXPECTED TO CONTINUE MODERATE FOR A DAY OR TWO. IT IS DIFFICULT TO DETERMINE WHETHER REGION 2281 (OLD REGION 2245) WILL DEFINE A NEW SET OF ACTIVE LONGITUDES, WITHOUT A BETTER LOOK AT THE REGION. IT IS CURRENTLY ESTIMATED THAT THE PRESENT MODERATE LEVEL OF ACTIVITY WILL DIMINISH WITHIN SEVERAL DAYS.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET FOR THE PAST 24 HOURS. THE FIELD IS STILL EXPECTED TO BECOME MILDLY ACTIVE ON 11 FEBRUARY DUE TO THE X2 BURST SEEN ON 08 FEBRUARY. ANY SUCH DISTURBANCE IS EXPECTED TO BE BRIEF.

III. EVENT PROBABILITIES 11 FEBRUARY - 13 FEBRUARY

CLASS M 90/90/90

CLASS X 15/20/25

PROTON 10/15/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 10 FEBRUARY 221

PREDICTED 11-13 FEBRUARY 216/211/207

90-DAY MEAN 10 FEBRUARY 208

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 09 FEBRUARY 11

ESTIMATED AFR/AP 10 FEBRUARY 06/07

PREDICTED AFR/AP 11-13 FEBRUARY 14/18 - 09/12 - 07/08

SOLTERWARN

BT