

HFUS 1 BOU 112200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF 042

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 11 FEBRUARY 1980

IA. SOLAR ACTIVITY HAS BEEN LOW TO MODERATE DURING THE PAST 24 HOURS. REGION 2281 (N09E62) HAS PRODUCED THE MOST INTERESTING ACTIVITY. OF SEVEN FLARES OBSERVED IN REGION 2281 DURING THE PERIOD, ONE WAS A C7/1B (MAX AT 11/0721Z), ONE AN M1/5B (MAX AT 1645Z) AND ONE AN M4/1B (MAX AT 2038Z). THE M4 EVENT PRODUCED A WEAK MAGNETIC CROCHET AT BOULDER. THE EVENT WAS VERY IMPULSIVE IN BOTH X-RAYS AND H-ALPHA. BETWEEN YESTERDAY AND TODAY A LARGE FILAMENT JUST EAST OF REGION 2277 (N10W34) DISAPPEARED. THE AREA WHERE THE FILAMENT USED TO BE IS QUITE CLEARLY OUTLINED IN H-ALPHA. REGION 2277 IS MORE COMPLEX MAGNETICALLY TODAY AND HAS BEEN THE SECOND MOST ACTIVE FLARE PRODUCER ON THE DISK. THESE FLARES HAVE ONLY BEEN C-CLASS SUBFLARES, HOWEVER. REGION 2276 (S12W18), WHICH WAS THREATENING YESTERDAY, PRODUCED FOUR C-CLASS SUBFLARES TODAY - BUT SEEMS TO BE DISINTEGRATING RAPIDLY NOW. SURGING AT NE25 MAY INDICATE STILL ANOTHER GROUP APPROACHING EAST LIMB.

IB. SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS THROUGH THE NEXT 48 HOURS. REGION 2281 IS LARGE IN WHITE LIGHT BUT APPEARS TO HAVE A RATHER NORMAL BIPOLAR STRUCTURE. IT DOES NOT LOOK LIKE A MAJOR FLARE PRODUCER NOW, BUT THAT VIEW WILL CHANGE IF IT IS FOUND TO HAVE A GREAT MAGNETIC COMPLEXITY. ACCURATE MAGNETIC ANALYSIS IS NOT YET POSSIBLE. NO OTHER CURRENTLY VISIBLE REGION IS ESPECIALLY IMPRESSIVE OR HAS ANY REAL ENERGETIC FLARE CAPABILITY AT THE MOMENT.

II. THE GEOMAGNETIC FIELD HAS BEEN VERY QUIET DURING THE PAST 24 HOURS. THE FIELD IS EXPECTED TO BE QUIET TO MILDLY UNSETTLED UNTIL 14 FEBRUARY. THEN THE EFFECTS OF THE DISAPPEARING FILAMENT NEAR REGION 2277 ARE EXPECTED TO REACH THE EARTH AND CAUSE A BRIEF DISTURBANCE.

III. EVENT PROBABILITIES 12 FEBRUARY - 14 FEBRUARY

CLASS M 90/90/80

CLASS X 15/20/15

PROTON 10/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 11 FEBRUARY 219

PREDICTED 12-14 FEBRUARY 208/207/202

90-DAY MEAN 11 FEBRUARY 207

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 10 FEBRUARY 04

ESTIMATED AFR/AP 11 FEBRUARY 04/06

PREDICTED AFR/AP 12-14 FEBRUARY 08/10 - 07/08 - 15/18

SOLTERWARN

BT