

HFUS 1 BOU 012200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO.

SDF NUMBER 122

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 01 MAY 1980

IA. SOLAR ACTIVITY HAS INCREASED WITH A X2/1B FLARE AND ASSOCIATED 10 CM RADIO BURST OF 800 FLUX UNITS AND TYPE III/IV SWEEP FREQUENCY RADIO BURST IN REGION 2418 (S20E54) BEGINNING AT 1907Z, MAX 1915Z AND END 1928Z. THE REGION ALSO PRODUCED A M4/SB EVENT WITH 10 CM RADIO BURST OF 284 FLUX UNITS AT 1623Z AND SEVERAL CLASS C/SUB-FLARES IN THE PAST 24 HOURS. THE REGION CONTAINS A DELTA SPOT GROUP AND A LARGE BRIGHT PLAGE. REGION 2423 (N24E64) PRODUCED A M1/SB FLARE AT 1601Z. IT HAS ALSO PRODUCED SEVERAL OTHER CLASS C/SUB-FLARE EVENTS. CLASS C/SUBFLARES HAVE BEEN REPORTED IN REGIONS 2411 (S17W09) AND 2420 (S23W64) DURING THE DAY. REGION 2420 IS SMALL BUT SHOWING GROWTH IN THE SPOT GROUP. A M2/SN FLARE IN REGION 2407 (S32W95) AT 2108Z WAS FOLLOWED BY AN IMPORTANCE III LOOP PROMINENCE. IB. A PROTON EVENT IS UNLIKELY FROM THE X2/1B EVENT BECAUSE OF THE LOCATION OF REGION 2418. SOLAR ACTIVITY SHOULD REMAIN MODERATE TO HIGH DURING THE FORECAST PERIOD. CLASS M EVENTS ARE POSSIBLE FROM REGION 2418, 2423 AND 2411.

II. THE GEOMAGNETIC FIELD WAS UNSETTLED DURING THE PAST 24 HOURS. A MAGNETIC CROCHET OF 19 GAMMAS WAS OBSERVED AT BOULDER AT 1915Z IN ASSOCIATION WITH THE X2 EVENT. THE MAGNETIC FIELD IS EXPECTED TO REMAIN UNSETTLED FOR TWO DAYS AND TO BE ACTIVE ON 04 MAY.

III. EVENT PROBABILITIES 02 MAY - 04 MAY

CLASS M 9.0/9.0/9.0

CLASS X 15/15/15

PROTON 5/5/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 01 MAY 206

PREDICTED 02 MAY - 04 MAY 208/210/212

90-DAY MEAN 01 MAY 193

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 30 APRIL 10

ESTIMATED AFR/AP 01 MAY 10/11

PREDICTED AFR/AP 02 MAY - 04 MAY 12/12 12/12 25/25

SOLTERWARN

BTC 6/1/80