

NFUS /1 BOU 142200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 105

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 14 APRIL 1980

I.A. SOLAR ACTIVITY HAS BEEN LOW. A C9 X-RAY EVENT OCCURRED AT 2037Z (MAX); THIS EVENT WAS ASSOCIATED WITH SIMULTANEOUS OPTICAL FLARES: A SB FLARE FROM REGION 2290 (SITE 18) AT 2037Z (MAX) AND A IN FLARE FROM REGION 2275 (S3IW37) AT 2032Z (MAX). THE FLARES WERE ACCOMPANIED BY MINOR RADIO BURSTS (100 FU AT 2695 MHZ). REGION 2277 WAS THE MOST PROLIFIC REGION OVER THE LAST 24 HOURS WITH SEVERAL SUBFLARES ASSOCIATED WITH MINOR C-CLASS X-RAY EVENTS. REGION 2277 IS A LARGE E-TYPE BETA GAMMA DELTA REGION WITH STRONG MAGNETIC GRADIENTS, PLAGE FLUCTUATIONS AND ARCH FILAMENT SYSTEM. REGION 2375 HAS SHOWN SOME DECAY BUT REMAINS A MAGNETICALLY COMPLEX, BETA GAMMA DELTA GROUP WITH STRONG FLARE POTENTIAL. REGION 2390 IS A REVERSED POLARITY GROUP WITH STRONG PLAGE FLUCTUATIONS. REGION 2389 (N19E20) MAY POSSIBLY CONTAIN A DELTA. AN M2 FLARE IS NOW IN PROGRESS FROM REGION 2375 AT 2139Z (MAX). FLARE IS CENTERED IN TRAILER POSITION IN VICINITY OF THE DELTA.

2390

2375

2377

2377

I.B. SOLAR ACTIVITY SHOULD RETURN TO MODERATE LEVELS OVER THE NEXT 24 HOURS. REGIONS 2377, 2375, AND 2370 (N24W83) ALL APPEAR TO BE CAPABLE OF PRODUCING M-CLASS FLARES OR AN ISOLATED X-CLASS EVENT.

II. THE GEOMAGNETIC FIELD HAS BEEN AT PREDOMINATELY UNSETTLED LEVELS AND IS FORECAST TO REMAIN AT UNSETTLED LEVELS DURING THE NEXT PERIOD.

III. EVENT PROBABILITIES 15 - 17 APRIL

CLASS M 90/90/90

CLASS X 20/15/15

PROTON 20/15/15

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 APR 225

PREDICTED 15 - 17 APR 218/210/206

90-DAY MEAN 14 APR 191

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 13 APR 18

ESTIMATED AFR/AP 14 APR 05/10

PREDICTED AFR/AP 15 - 17 APR 10/12 10/12 10/17

SOLTERWARN

BT