

4EUS 130H 192200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 171

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 19 JUNE 1980

IA. SOLAR ACTIVITY HAS INCREASED DURING THE PAST SEVERAL HOURS TO THE MODERATE LEVEL. THE SOUTHEAST QUADRANT OF THE SUN HAS COME ALIVE STARTING WITH AN M1/1B FROM REGION 2522 (S28E44). MAXIMUM FOR THIS FLARE WAS 1849Z WITH A DARK SURGE SEEN TRAVELING SOUTH TOWARDS THE LIMB. ANOTHER X-RAY BURST FOLLOWED AT 1858Z MAXIMUM FROM WHAT WAS PROBABLY A SYMPATHETIC FLARE BEHIND THE LIMB AT SE13. THE BURST REACHED M1 WITH POST FLARE LOOPS SEEN. THIS REGION HAS BEEN NUMBERED 2529 (S13E90). AT 1947Z AN UNSPOTTED AREA AT S23E53 PRODUCED AN M2/2B FLARE WHICH REACHED MAXIMUM AT 2210Z. THIS REGION WHICH HAS BEEN NUMBERED 2530 IS ALONG A NEUTRAL LINE IN CLOSE PROXIMITY TO THE 2517/2519 COMPLEX CENTERED AT (S16E30). A NEW REGION 2528 (S21E36) HAS EMERGED SOUTHEAST OF REGION 2519.

IB. SOLAR ACTIVITY WILL BE INCREASING DURING THE FORECAST PERIOD WITH MODERATE LEVELS EXPECTED. AN APPARENT CONVERGENCE OF TWO MAGNETIC NEUTRAL SHEETS IN THE SOUTHEAST QUADRANT IS EXPECTED TO TRIGGER CONTINUED M-CLASS ACTIVITY. REGION 2522 IS UNDERGOING RAPID GROWTH AND STRUCTURAL CHANGES. REGION 2529 (OLD MODERATELY ACTIVE REGION 2478) IS AT THE LIMB WITH INDICATIONS OF BEING A SIGNIFICANT FLARE PRODUCING REGION. THE WEST HALF OF THE SUN IS EXPECTED TO REMAIN FAIRLY QUIET.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET DURING THE PAST 24 HOURS. THE EFFECTS OF A FAVORABLY LOCATED CORONAL HOLE (CENTERED AT N20W25) ARE EXPECTED TO RAISE ACTIVITY TO HIGH UNSETTLED LEVELS ON THE 24TH, FOLLOWED BY QUIET CONDITIONS ON THE 22ND.

III. EVENT PROBABILITIES 20 JUNE - 22 JUNE

CLASS M 60/70/70

CLASS X 05/05/10

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 JUNE 212

PREDICTED 20 JUNE - 22 JUNE 220/225/228

90-DAY MEAN 19 JUNE 207

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 18 JUNE 04

ESTIMATED AFR/AP 19 JUNE 09/09

PREDICTED AFR/AP 20 JUNE - 22 JUNE 14/18 10/16 06/12

SOLTERWARN

BT