

HFUS 1 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 158

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 07 JUNE 1979

I A. SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS. REGION 1796 (N 16E57) HAS ROTATED FARTHER ONTO THE DISK AFFORDING A BETTER VIEW. ALTHOUGH NOT AN EXTREMELY COMPLEX STRUCTURE, THIS REGION HAS PRODUCED SEVERAL OPTICAL SUBFLARES SINCE THE M3/2N FLARE YESTERDAY. THE BEHAVIOR OF THE SPRAY WHICH ACCOMPANIED THIS FLARE, AND THE OCCURANCE OF SIMULTANEOUS SUBFLARES IN THIS REGION AND REGION 1797 (S 17E61) SUGGEST TRANSEQUATORIAL CORONAL CONNECTIONS BETWEEN THESE TWO REGIONS. REGION 1781 (N 20W21) REMAINS

SURPRISINGLY QUIET IN SPITE OF ITS COMPLEX MAGNETIC STRUCTURE. THIS REGION'S LEADER SUNSPOTS RETAIN THEIR DELTA CONFIGURATION AND THE REMAINING SPOTS ARE STILL OF MIXED POLARITY. NO NEW REGIONS WERE OBSERVED OVER THE PAST 24 HOURS.

IB. SOLAR ACTIVITY IS EXPECTED TO INCREASE TO MODERATE LEVELS OVER THE NEXT 24 HOURS. REGIONS 1781, 1796 AND 1797 ARE MOST LIKELY TO PRODUCE THIS ACTIVITY.

II. THE GEOMAGNETIC FIELD HAS BEEN ACTIVE FOLLOWING THE SSC AT 06/1930 UT AND TWO THREE-HOUR PERIODS AT MINOR STORM LEVELS. THE GEOMAGNETIC FIELD IS EXPECTED TO RETURN TO UNSETLED LEVELS WITHIN THE NEXT 24 HOURS. THE LOW ENERGY PROTON EVENT WHICH REACHED EVENT THRESHOLD OF 10 PARTICLES/CM<sup>2</sup>/S/STER GREATER THAN 10 MEV AT 06/1850 UT REACHED A MAXIMUM OF APPROXIMATELY 950 PARTICLES/CM<sup>2</sup>/S/STER GREATER THAN 10 MEV AT 07/0005 UT. LOW ENERGY PARTICLE FLUX REMAINS ABOVE EVENT LEVELS AND IS EXPECTED TO DECREASE WITHIN THE NEXT FEW HOURS. POLAR CAP ABSORPTION REACHED EVENT THRESHOLD OF 2.0 DB ON THE THULE RIOMETERS AT APPROXIMATELY 06/2245 UT AND A MAXIMUM ABSORPTION OF 5.9 DB AT 07/0215 UT. THE POLAR CAP ABSORPTION IS STILL IN PROGRESS AND SHOULD DECREASE WITHIN A TIME FRAME COMMENSURATE TO THE PARTICLE EVENT.

III. EVENT PROBABILITIES 08 JUNE - 10 JUNE

CLASS M 70/70/70

CLASS X 20/20/20

PROTON 20/20/20

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 JUNE 231

PREDICTED 08 JUNE - 10 JUNE 231/229/227

90-DAY MEAN 07 JUNE 180

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 06 JUNE 21

ESTIMATED AFR/AP 07 JUNE 22/30

PREDICTED AFR/AP 08 JUNE - 10 JUNE 15/25 10/20 10/15

SOLTERWARN

BT