

REF ID: A82200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO.

SD F. NUMBER: 200

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 18 JULY 1980

I.A. SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS. THE LARGEST FLARE HAS BEEN A 1F, NO X-RAY, FROM REGION 25 62 (S12W23) AT 0459 UT. AT 172300 UT THE PROTON FLUX AT SATELLITE LEVELS STARTED A SLOW RISE TO EVENT LEVEL OF 10 PARTICLES PER SQUARE CENTIMETER PER SECOND PER STERADIANT OR GREATER THAN 10 MEV AT 180235 UT. MAXIMUM WAS REACHED AT 181930 UT WITH 100 PARTICLES AT OR GREATER THAN 10 MEV. A POLAR CAP ABSORPTION EVENT OF 2.0 DB OR GREATER BEGAN 181430 UT. THE PROTON AND PCA EVENTS ARE THOUGHT TO HAVE BEEN CAUSED BY THE M3/1B EVENT FROM REGION 25 62 ON 17 JULY AT 0612 UT. REGION 25 62 HAS SHOWN SOME DECAY, HOWEVER A DELTA IS STILL PRESENT. REGIONS 25 70 (S23E15) AND 25 71 (S20E32) ARE BOTH STABLE. NEW REGIONS TODAY 25 78 (N27E34) AND 25 79 BOTH SIMPLE C-TYPE GROUPS.

I.B. SOLAR ACTIVITY IS EXPECTED TO INCREASE TO MODERATE LEVELS. REGIONS 25 62/25 70 AND 25 71 ARE CAPABLE OF AN M-CLASS EVENT. WITH 25 62 CAPABLE OF A SMALL X-CLASS EVENT. WITH 25 62 A PROVEN PROTON PRODUCER ANY FURTHER M-CLASS OR GREATER EVENT FROM THIS REGION MUST BE CAREFULLY WATCHED.

II. THE GEOMAGNETIC FIELD WAS SLIGHTLY UNSETLED UNTIL 1928 UT WHEN A SUDDEN COMMENCEMENT OF 39 GAMMAS WAS SEEN AT BOULDER. THE GEOMAGNETIC FIELD IS EXPECTED TO BE ACTIVE DURING THE NEXT 24 HOURS. THEN UNSETLED THE REST OF THE FORECAST PERIOD. THE PROTON EVENT IS EXPECTED TO CONTINUE FOR 48 HOURS AND THE PCA EVENT FOR THE NEXT 12 HOURS.

III. EVENT PROBABILITIES - 19-21 JULY

CLASS M 65/65/65

CLASS X 05/05/05

PROTON 05/05/05

PCAF IN PROGRESS

IV. OTTAWAY 10.7 CM FLUX

OBSERVED 18 JULY 245

PREDICTED 19 - 21 JULY 245/244/236

90-DAY MEAN 18 JULY 202

V. GEOMAGNETIC ACTIVITIES

OBSERVED FREDERICKSBURG 17 JULY 09

ESTIMATED AFR/AP 18 JULY 18/18

PREDICTED AFR/AP 19 - 21 JULY 20/25 12/15 09/12

SOLAR WARNS

BT

0800