

HFUS 1 BOU 182200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 200

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 18 JULY 1980

IA. SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS. THE  
LARGEST FLARE HAS BEEN A IF, NO X-RAY, FROM REGION 2562 (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 STERADIAN AT 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 M3/19 EVENT FROM REGION 2562 ON 17 JULY  
AT 0612 UT. REGION 2562 HAS SHOWN SOME DECAY HOWEVER A DELTA IS  
STILL PRESENT. REGIONS 2570 (S23E15) AND 2571 (S20E32) ARE BOTH  
STABLE. NEW REGIONS TODAY 2578 (N27E34) AND 2579 BOTH SIMPLE C-TYPE  
GROUPS.

IB. SOLAR ACTIVITY IS EXPECTED TO INCREASE TO MODERATE LEVELS.  
REGIONS 2562/2570 AND 2571 ARE CAPABLE OF AN M-CLASS EVENT WITH  
2562 CAPABLE OF A SMALL X-CLASS EVENT. WITH 2562 A PROVEN  
PROTON PRODUCER ANY FURTHER M-CLASS OR GREATER EVENT FROM THIS  
REGION MUST BE CAREFULLY WATCHED.

II. THE GEOMAGNETIC FIELD WAS SLIGHTLY UNSETTLED 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 UNSETTLED 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. OTTAWA 10.7 CM FLUX

OBSERVED 18 JULY 245

PREDICTED 19 - 21 JULY 245/244/236

90-DAY MEAN 18 JULY 202

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 17 JULY 09

ESTIMATED AFR/AP 18 JULY 18/18

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

SOLTERWARN

BT

0800