

HFUS 1 BOU 062200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 187

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 06 JULY 1979

IA. SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS WITH ONLY LOW C-CLASS AND SUBFLARE ACTIVITY BEING REPORTED. THERE ARE 17 SPOTTED REGIONS ON THE DISK, INCLUDING ONE NEW REGION TODAY WHICH IS 1861 (S32W06), AN A-TYPE GROUP. SIGNIFICANT GROWTH OCCURED IN REGIONS 1855 (S29E43), 1858 (N18E23), 1859 (N21E39), AND 1860 (N28E60). REGION 1849 (N11E24) IS THE MOST MAGNETICALLY COMPLEX GROUP ON THE SUN (BETA-DELTA).

IB. SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE FOR THE NEXT THREE DAYS. SEVERAL REGIONS ON THE SUN HAVE THE POTENTIAL TO PRODUCED M-CLASS ACTIVITY ALTHOUGH THE COMPLEXITY USUALLY ASSOCIATED WITH X-CLASS EVENTS IS NOT PRESENT.

II. THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO ACTIVE FOR THE PAST 24 HOURS. A SUDDEN IMPULSE OF 33 GAMMAS OCCURRED AT 1930 UT, APPARENTLY ORIGINATING FROM THE M-CLASS EVENTS ON 4 JULY. ENHANCED PROTON LEVELS ARE ASSOCIATED WITH THE MAGNETIC ACTIVITY, BUT ARE PRESENTLY REMAINING JUST BELOW THE EVENT THRESHOLD OF 10 PROTONS/CM SQUARED/SEC/STER FOR GREATER THAN 10 MEV PARTICLES. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN ACTIVE FOR TOMORROW, DECREASING TO UNSETTLED AND THEN QUIET CONDITIONS ON THE THIRD DAY. THE PROTON LEVELS ARE EXPECTED TO FLUCTUATE NEAR THRESHOLD FOR THE NEXT 24 HOURS ONLY. A RECURRENT CORONAL HOLE AT N30E40 WAS IDENTIFIED ON TODAY'S HELIUM 10830 PICTUER FROM KITT PEAK OBSERVATORY. THE HIGH SPEED SOLAR WIND FROM THIS CORONAL HOLE SHOULD PRODUCE ACTIVE GEOMAGNETIC CONDITIONS IN APPROXIMATELY ONE WEEK.

III. EVENT PROBABILITIES 07 JULY - 09 JULY 1979

CLASS M 50/50/50

CLASS X 05/05/05

PROTON 50/15/05

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 06 JULY 210

PREDICTED 07 JULY - 09 JULY 210/208/206

90-DAY MEAN 06 JULY 175

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 05 JULY 08

ESTIMATED AFR/AP 06 JULY 15/17

PREDICTED AFR/AP 07 - 09 JULY 20/25 10/12 06/08

SOLTERWARN

BT