

HFUS 1-B OU 132200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLO

SDF NUMBER 013

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 13 JANUARY 1980

I.A. SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS.  
REGION 2229 (N20W68) WAS THE MOST ENERGETIC REGION PRODUCING AN  
M3 BURST WITH MAX AT 13/0329Z (IN OPTICALLY) AND AN M3 BURST  
WITH MAX AT 1851Z (SB OPTICALLY) ALONG WITH HALF A DOZEN C-CLASS  
SUBFLARES. REGIONS 2227 (S19W74), 2223 (S14W83) AND NEW  
REGION 2243 (S13E69) ALL FLARED AT APPROXIMATELY THE SAME TIME,  
PRODUCING A 1B, A 1B AND A 2B RESPECTIVELY. THEY ALL REACHED  
MAXIMUM AT ABOUT 13/1625Z. AN M2 X-RAY BURST WAS NOTED AT THAT  
TIME BUT IT IS DIFFICULT TO ATTRIBUTE THE X-RAYS TO ANY SINGLE  
REGION. NEW REGION 2243 HAS PRODUCED OCCASIONAL SUBFLARES AND  
MAY CONTINUE PRODUCING FLARES WHEN STRONG REGIONS 2229 AND 2232  
(S11W43) PASS OUT OF SIGHT OVER THE WEST LIMB. WEATHER CONTINUES  
TO SEVERLY HAMPER GLOBAL OBSERVATIONS.

I.B. SOLAR ACTIVITY IS EXPECTED TO CONTINUE MODERATE. THERE IS  
CONTINUING HIGH PROBABILITY OF M-CLASS EVENTS AND SOME  
CHANCE OF AN X-CLASS EVENT. AS STRONG REGIONS 2229 AND 2232 HEAD  
FOR THE WEST LIMB, THERE IS A DIMINISHING PROBABILITY OF HIGH  
ENERGY PROTON FLARES AFFECTING THE EARTH.

II. THE GEOMAGNETIC FIELD WAS QUIET AT THE BEGINNING OF THE UT  
DAY. A SMALL SUDDEN COMMENCEMENT WAS NOTED AT 13/0510Z SINCE  
THAT TIME, MID-LATITUDE K-VALUES HAVE REFLECTED MILDLY ACTIVE  
CONDITIONS IN THE GEOMAGNETIC FIELD. THE FIELD IS EXPECTED TO BE  
SOMEWHAT MORE ACTIVE DURING NIGHT TIME HOURS WITH ACTIVITY  
DECLINING SLOWLY OVER THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 14 JANUARY - 16 JANUARY 1980

CLASS M 90/90/80

CLASS X 25/25/20

PROTON 20/15/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 JANUARY 229

PREDICTED 14 - 16 JANUARY 219/209/199

90-DAY MEAN 13 JANUARY 222

V. GEOMAGNETIC INDICES

OBSERVED FREDERICKSBURG 12 JANUARY 04

ESTIMATED AFR/AP 13 JANUARY 16/24

PREDICTED AFR/AP 14 - 16 JANUARY 25/30 15/17 10/12

SOLTERWARN

BT