

HFUS 1800 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

IA. 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 SEVERELY HAMPER GLOBAL OBSERVATIONS.

IB. 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 A 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