

HFUS-1 BOU 251400  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 025A

JOINT USAF/NASA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 1200UT 25 JAN 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
24/1200UT TO 25/1200UT:

THE SUN IS ACTIVE AGAIN. HIGH LEVELS OF SOLAR ACTIVITY OCCURRED,  
APPARENTLY DUE TO REGION 2911, LOCATED AT APPROXIMATELY S 13,  
BUT STILL BEHIND THE EAST LIMB. ONE X-CLASS XRAY EVENT AND  
FIVE M-CLASS EVENTS WERE MEASURED BETWEEN 25/0200 AND 25/1000.  
OPTICAL EFFECTS OBSERVED WITH THESE EVENTS INCLUDED LOOPS AND  
BRIGHT SURGES ON THE LIMB. THE TWO LARGEST XRAY FLARES WERE;  
(1) X2 AT 0747 UT, AND (2) M9 AT 0908 UT. ACCOMPANYING THE M9  
EVENT WAS A RADIO BURST OF 2500 FLUX UNITS AT 2695 MHZ AND 4800  
FU AT 8800 MHZ, AS WELL AS SHORT WAVE FADES.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. BECAUSE REGION 2911  
IS NOT YET ON OUR SIDE OF THE SUN, WE CANNOT BE CERTAIN OF ITS  
FUTURE FLARE POTENTIAL, I.E., THE REGION MAY STILL BE GROWING OR  
IT MAY BE DECLINING. BASED ON THE RADIO BURST SIGNATURES, WE  
ESTIMATE THAT THE SPOTS OF THIS REGION WILL APPEAR WITHIN  
THE NEXT 24 HOURS. PLEASE BE AWARE OF THE POSSIBILITY, HOWEVER,  
THAT MORE THAN ONE SPOTTED REGION BEHIND THE LIMB COULD BE CAUSING  
THIS INCREASED ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET. THE SOURCE OF THE EXPECTED  
FLARE ACTIVITY (REGION 2911) IS TOO FAR EAST TO EXPECT ANY FLARE-  
RELATED GEOMAGNETIC ACTIVITY BEFORE 1 FEBRUARY.

III. EVENT PROBABILITIES: 26-28 JAN

CLASS M 85/85/85

CLASS X 20/20/20

PROTON 01/01/01

PCAF GREEN

180

IV. OTTAWA 10.7 FLUX

OBSERVED 24 JAN 162

ESTIMATED 25 JAN 175

PREDICTED 26-28 JAN 185/195/205

90 DAY MEAN 24 JAN 207

V. GEOMAGNETIC INDICES

OBSERVED AFR 23 JAN 08 AFR/AP 24 JAN 09

ESTIMATED AFR 24 JAN 07 AFR/AP 25 JAN 06/10

PREDICTED AFR/AP 26-28 JAN 07/08 06/07 06/07

SOLAR WARNS

BT

HFUS 3 BOU 252200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 025B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200UT 25 JANUARY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
25/1200UT TO 25/2200UT:

SOLAR ACTIVITY HAS BEEN MODERATE. THE FOLLOWING EVENTS  
OCCURRED (X-RAY MAX): M2 AT 1648Z; M1 AT 1916Z; AND, M1  
AT 2055Z. ALL THESE X-RAY BURSTS OCCURRED WITH LIMB  
ACTIVITY ON THE SE LIMB. SOME SUNSPOT AND PLAGE STRUCTURE  
HAS ROTATED AROUND (REGION 2911). HOWEVER, ACTIVITY HAS  
OCCURRED OVER APPROXIMATELY 10 DEGREES OF LATITUDE AND ALSO  
BEHIND THE LIMB CONNOTING THE POSSIBILITY OF MORE THAN ONE  
REGION.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET TO SLIGHTLY UNSETLED.  
THESE CONDITIONS ARE EXPECTED TO CONTINUE THROUGH THE FORECAST  
PERIOD.

III. EVENT PROBABILITIES: 26-28 JAN

CLASS M 85/85/85

CLASS X 20/20/20

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 25 JAN 180

PREDICTED 26-28 JAN 190/200/210

90 DAY MEAN 25 JAN 207

V. GEOMAGNETIC A INDICES

OBSERVED AFR//AQP 24 JAN 09/09

ESTIMATED AFR/AP 25 JAN 06/08

PREDICTED AFR/AP 26-28 JAN 07/08 06/07 06/07

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BT