

HFUS 1 BOU 291300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 363A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 29 DEC 1982

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 28/1220Z TO 29/1200Z: SOLAR ACTIVITY HAS BEEN HIGH. REGION 4033 (S12W21) PRODUCED AN IMPULSIVE X1/2B AT 2640Z. THE FLARE OCCURRED IN THE TRAILER PORTION NEAR THE DELTA CONFIGURATION. UMBRAL COVERAGE WAS REPORTED. MODERATE SHORT WAVE FADE THROUGH 18 MHZ; STRONG DISCRETE FREQUENCY RADIO BURSTS (S70 FU AT 2695 MHZ); AND A TYPE II DEKAMETRIC BURST OCCURRED WITH THIS FLARE. THE FLARE DID NOT CHANGE THE PLAGE OR MAGNETIC STRUCTURE OF REGION 4033. REGION 4032 (N08W78) PRODUCED A M4/SN AT 1551Z. REGION 4042 (S19W22) WAS ADDED YESTERDAY.

I B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH REGION 4033 PRODUCING OCCASIONAL ENERGETIC FLARES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE. VARIABLE UNSETTLED TO ACTIVE FIELD CONDITIONS ARE EXPECTED FOR THE FORECAST PERIOD. THE CALCULATED PCA EVENT WAS ENDED AT 23/2300Z AND THE SATELLITE PROTON EVENT ENDED NEAR 29/0430Z.

III. EVENT PROBABILITIES 30 DEC-01 JAN

CLASS M 75/75/62

CLASS X 10/10/05

PROTON 10/10/05

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 23 DEC 162

ESTIMATED 29 DEC 152

PREDICTED 30 DEC-01 JAN 145/140/135

90 DAY MEAN 28 DEC 178

V. GEOMAGNETIC A INDICES

OBSERVED AFR 27 DEC 015 AF 28 DEC -21

ESTIMATED AFR 28 DEC 015 AFR/AF 29 DEC 016/013

PREDICTED AFR/AP 30 DEC-01 JAN 010/012-012/020-015/020

SOLFRWARN

BT

HFUS 3 BOU 692200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDE NUMBER 363B

JOINT USAF/NCAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 29 DEC 1982

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
29/1200Z TO 29/2100Z:

ACTIVITY HAS BEEN LOW SINCE 1200Z BUT THE POTENTIAL REMAINS.  
DISK CHANGES THIS PERIOD INCLUDE FURTHER EXPANSION AND  
FRAGMENTATION OF REGION 4033 (S13W29) AND FURTHER DEVELOPMENT  
OF REGION 4042 (19W30). REGION 4036 (N19W00) BECAME SPOT-  
LESS WHILE REGION 4038 ROTATED OVER THE WEST LIMB.

II. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD BE AT MODERATE LEVELS FOR THE NEXT 24  
HOURS. REGION 4033 IS EXPECTED TO CONTINUE PRODUCTION OF  
OCCASIONAL ENERGETIC FLARES.

III. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETLED. UNSETLED CONDI-  
TIONS SHOULD PERSIST FOR ANOTHER 24 HOURS. OFFICIAL END TIMES  
FOR THE PARTICLE EVENT ARE AS FOLLOWS: CALCULATED PCA 282300Z  
AND .10 MEV PROTONS 290430Z.

IV. EVENT PROBABILITIES: 30 DEC 1982 - 01 JAN 1983

CLASS M 75/75/60

CLASS X 10/10/05

PROTON 10/10/05

PCAF YELLOW

V. OTTAWA 10.7 FLUX

OBSERVED 29 DEC 152

PREDICTED 30 DEC-01 JAN 145/140/135

90 DAY MEAN 29 DEC 177

VI. GEOMAGNETIC A<sub>1</sub> INDICES

OBSERVED AFR/AP 28 DEC 16/21

ESTIMATED AFR/AP 29 DEC 15/18

PREDICTED AFR/AP 30 DEC-01 JAN 10/10 12/20 15/20

SOLTERWARN

BT