

HFUS 1 BOU 211300  
FROM SPACE ENVIRONMENT SERVICES CENTER. BOULDER, COLORADO  
SDF NUMBER 355A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 1300Z 21 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
20/1200Z TO 21/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE THIS  
PERIOD WITH FIVE "M" CLASS EVENTS BEING OBSERVED. THREE OF THE  
EVENTS HAD NO OPTICAL CORRELATION A M1 AT 20/1553UT, M2 AT  
21/0209UT AND A M1 AT 21/0643UT. REGION 4033 (S115) PRODUCED A  
M1 AT 20/1702UT AND AT 21/0458UT A M3 WITH A BRIGHT SURGE, OUT  
TO .16 RADII, BEING OBSERVED. THE LATEST REPORT INDICATES THAT  
REGION 4033 IS A LEAST A D TYPE GROUP HOWEVER LIMB PROXIMITY  
PREVENTS DETAILED ANALYSIS. REGION 4026 (S000/61) IS NOW A  
SIMPLE B TYPE GROUP OF 20 MILLIONINS. REGION 4025 (S075/72)  
CONTINUES TO DECAY IN SIZE WHILE RETAINING A BETA-GAMMA-DELTA -  
MAGNETIC CONFIGURATION. TWO NEW GROUPS HAVE BEEN REPORTED  
(S04W20) AND (S19E16) HOWEVER NO SPOT REPORTS HAVE BEEN  
RECEIVED THEREFORE THEY WILL BE NUMBERED LATER.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO  
CONTINUE AT MODERATE LEVELS DURING THIS FORECAST PERIOD.  
REGIONS 4025 AND 4033 APPEAR TO BE THE MOST CAPABLE OF M CLASS  
FLARE PRODUCTION. REGION 4033 MAY BE AN X CLASS EVENT PRODUCED  
HOWEVER LIMITED DATA AT THIS TIME PREVENTS A DETAILED REPORT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
BEEN AT ACTIVE TO MINOR STORM LEVELS DURING THIS PERIOD. THE  
COMBINED EFFECTS OF A LARGE CORONAL HOLE AND THE CONTINUED  
LARGE EVENTS SHOULD KEEP THE FIELD AT ACTIVE WITH PERIODS OF  
MINOR STORM CONDITIONS DURING THE FORECAST PERIOD.  
THE PROTON EVENT DROPPED BELOW EVENT LEVELS OF 10P/CM2/SEC/STER  
AT GREATER THAN 10MEV AT 21/0015UT.

III. EVENT PROBABILITIES 22 DEC-24 DEC

CLASS M 90/90/90

CLASS X 15/10/10

PROTON 15/12/25

PCAF YELLOW

IV. OTTAWA 17.7 CM FLUX

OBSERVED 20 DEC 165

ESTIMATED 21 DEC 157

PREDICTED 22 DEC-24 DEC 156/156/156

90 DAY MEAN 20 DEC 178

V. GEOMAGNETIC A INDICES

OBSERVED AFR 19 DEC 020 AP 20 DEC 033

ESTIMATED AFR 20 DEC 028 AFR/AP 21 DEC 024/025

PREDICTED AFR/AP 22 DEC-24 DEC 025/025-020/020-020/020

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HFUS 3 BOU 212200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 355B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 21 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/1200Z TO 21/2100Z: SOLAR ACTIVITY HAS BEEN LOW. THE LARGEST FLARE WAS A C3/SF FROM REGION 4025 (S07W81). REGION 4033 (S13E00) ALSO HAD 3 SMALL FLARES. THE REST OF THE REGIONS WERE QUIET. REGION 4033 HAS ROTATED INTO VIEW AND IS NOW AN EKO GROUP WITH A WHITE LIGHT AREA OF 320 MILLIONTHS. REGION 4025 CONTINUES TO DECAY IN WHITE LIGHT AND IS NOW MAGNETIC CLASS BETA-DELTA. TWO SMALL REGIONS, 4035 (S03W27) AND 4036 (S12E10) WERE NUMBERED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE WITH ANY M CLASS EVENTS EXPECTED TO COME FROM REGIONS 4025 OR 4033.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT MINOR STORM LEVELS. THIS FLARE INDUCED ACTIVITY IS EXPECTED TO END, BUT CORONAL HOLE RELATED ACTIVITY IS EXPECTED TO KEEP THE FIELD AT ACTIVE LEVELS.

III. EVENT PROBABILITIES 22 DEC-24 DEC

CLASS M 90/90/90

CLASS X 15/10/10

PROTON 15/10/05

PCAF YELLOW

IV. OTTAWA 12.7 CM FLUX

OBSERVED 21 DEC 154

PREDICTED 22 DEC-24 DEC 150/150/151

90 DAY MEAN 21 DEC 179

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 20 DEC 037/050

ESTIMATED AFR/AP 21 DEC 028/035

PREDICTED AFR/AP 22 DEC-24 DEC 025/025-020/020-020/020

SOLTERWARN

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