

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

I. 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 21/0229UT 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 AT LEAST A D TYPE GROUP HOWEVER LIMB PROXIMITY PREVENTS DETAILED ANALYSIS. REGION 4226 (S04W61) IS NOW A SIMPLE B TYPE GROUP OF 20 MILLION IHS. REGION 4225 (S07W72) 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.

II. 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.

III. 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/CMB/SEC/STER AT GREATER THAN 10MEV AT 21/0015UT.

IV. EVENT PROBABILITIES 22 DEC-24 DEC

CLASS M 90/90/90

CLASS X 15/10/10

PROTON 15/12/25

PCAF YELLOW

V. GEOMAGNETIC A INDICES

OBSERVED 20 DEC 165

PREDICTED 21 DEC 157

PREDICTED 22 DEC-24 DEC 156/156/159

90 DAY MEAN 20 DEC 173

SOLTERWARN

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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 (S13E80) 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 (S12E12) 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 228/035

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

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