

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 (S09061) IS NOW A
SIMPLE B TYPE GROUP OF 20 MILLIONIHS. REGION 4025 (S07972)
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		

SOLTERWARN

BT

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

BT