

HFUS 1 BOU 201300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 354A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 20 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
19/1200Z TO 20/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE WITH A
M9/2B FROM REGION 4022 (N09W85) AT 19/1541UT, LOOPS WERE
OBSERVED OUT TO .23 RADII. A PROTON INCREASE WAS OBSERVED AT
19/1930UT. REGION 4022 ALSO PRODUCED "M" EVENTS AT 19/2228UT A
M1/SN, 20/0014UT A M2/SN AND AT 20/0215UT A M1/SF. A M1/NO
OPTICAL WAS OBSERVED AT 20/0710UT. REGION 4025 (S06W58) HAS BEEN
STABLE THIS PERIOD BUT IT STILL CONTAINS A DELTA MAGNETIC
CONFIGURATION. REGION 4026 (S11W47) HAS DECAYED AND IS NOW A
SIMPLE "D" TYPE GROUP OF 30 MILLIONTHS AREA. OLD REGION 4007
(S15 L285) MAY HAVE PRODUCED A TYPE II SWEEP AT 20/0129UT WHICH
LASTED 19 MINUTES REPORTS INDICATE THAT IT WAS FROM THE SE
LIMB.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE DURING THIS FORECAST PERIOD. REGIONS 4022 AND 4025 ARE
THE PRIME CANDIDATES FOR LARGE EVENTS. IF OLD REGION 4007
RETURNS ACTIVE THEN THE PROBABILITY OF "X" CLASS EVENTS WILL
INCREASE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN AT ACTIVE LEVELS AT THE MID LATITUDE SITES WITH PERIODS OF
MINOR STORM CONDITIONS OBSERVED AT THE HIGH LATITUDES. A SUDDEN
COMMENCEMENT WAS OBSERVED AT 19/2219UT. WITH CONTINUING LARGE
EVENTS THE FIELD IS EXPECTED TO REMAIN AT ACTIVE, WITH PERIODS
AT MINOR STORM, LEVELS DURING THIS FORECAST PERIOD. A PROTON
EVENT BEGAN AT 19/1920UT. EFFECTS FROM THE M9 EVENT, WITH A
MAXIMUM OF 85 P/CM2/SEC/STER AT GREATER THAN 10MEV OBSERVED AT
20/0515UT. A POLAR CAP ABSORPTION BEGAN AT 20/0300UT AND IT
ALSO CONTINUES IN PROGRESS.

III. EVENT PROBABILITIES 21 DEC-23 DEC

CLASS M 90/90/90
CLASS X 20/15/10
PROTON 40/15/10
PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED	19 DEC	179
ESTIMATED	20 DEC	168
PREDICTED	21 DEC-23 DEC	158/156/158
97 DAY MEAN	19 DEC	178

V. GEOMAGNETIC A INDICES

OBSERVED AFR	18 DEC	035	AP 18 DEC	027
ESTIMATED AFR	19 DEC	025	AFR/AP 20 DEC	022/030
PREDICTED AFR/AP	21 DEC-23 DEC	025/025-025/025-020/020		

SOLTERWARN

BT

END OF BUFFER
HFUS 3 BOU 202200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 354B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 20 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
20/1200Z TO 20/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE THIS
PERIOD. THE LARGEST XRAY EVENTS WERE CLASS M1. ONE OF THESE
WAS FROM THE WEST LIMB WHERE 4022 (N09W92) ROTATED FROM THE
DISK. THE OTHER WAS FROM AN ACTIVE SURGE REGION AT S214.
REGION 4026 (S10W55) HAS CONTINUED TO DECAY IN WHITE LIGHT
AREA, WHILE REGION (4032), A REGION THAT WAS NUMBERED TODAY,
HAS SHOWN GROWTH IN WHITE LIGHT. A SECOND NEW REGION 4033
(S14E92) WAS NUMBERED FOR THE AREA OF THE LIMB THAT PRODUCED
THE M1 XRAY EVENT. REGION 4025 (S07W65), THE ONLY MAGNETICALLY
COMPLEX REGION, IS A BETA-GAMMA DELTA GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN MODERATE. REGIONS 4025 AND 4026 ARE STILL CAPABLE OF
PRODUCING AN ISOLATED X CLASS XRAY EVENT. THEY ARE FAVORABLY
SITUATED ON THE DISK SO ANY PARTICLES THEY EJECT HAVE A GOOD
CHANCE OF REACHING THE EARTHS ENVIRONMENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN ACTIVE WITH PERIODS AT MINOR STORM LEVELS. THIS LEVEL OF
ACTIVITY IS EXPECTED TO CONTINUE FOR THE NEXT TWO DAYS. THE
FIELD IS EXPECTED TO BE AT ACTIVE CONDITIONS FOR THE LAST DAY
OF THE FORECAST.

III. EVENT PROBABILITIES 21 DEC-23 DEC

CLASS M 90/90/90

CLASS X 20/15/10

PROTON 40/15/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 DEC 165

PREDICTED 21 DEC-23 DEC 158/156/158

90 DAY MEAN 20 DEC 178

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 10 DEC 028/027

ESTIMATED AFR/AP 20 DEC 028/036

PREDICTED AFR/AP 21 DEC-23 DEC 025/025-025/025-020/020

SOLTERWARN

BT