

HFUS 1 BOU 091300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 343A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 09 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
08/1200Z TO 09/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE. SEVERAL
M CLASS FLARES HAVE OCCURRED THE TWO STRONGEST WERE AN M6/2B
FROM REGION 4022 (N11E64) WITH AN XRAY MAX AT 08/1509Z AND AN
M9 WITH AN XRAY MAX AT 1138Z. THERE WERE NO OPTICAL REPORTS OF
THE M9 FLARE. REGION 4022 REMAINS ESSENTIALLY STABLE IN WHITE
LIGHT AREA BUT THE LATEST OBSERVATORY REPORT CLASSIFIES IT
MAGNETICALLY AS A BETA-DELTA. REGION 4014 (N08W21) IS
MAGNETICALLY A

BETA-GAMMA-DELTA GROUP. ALL OTHERS ARE EITHER BETAS OR ALPHAS.
REGION 4021 (S17E51) HAS GROWN RAPIDLY IN WHITE LIGHT AREA BUT
ITS GROWTH HAS DIMINISHED IN RECENT HOURS. REGION 4018
(S08W70) HAS DECREASED SIGNIFICANTLY IN WHITE LIGHT.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN MODERATE. THE CHANCE OF AN X CLASS XRAY EVENT IS
INCREASING. OLD REGION 3994 IS EXPECTED TO RETURN ON THE 10TH.
ANALYSIS OF THIS REGION AFTER ITS RETURN MAY SIGNIFICANTLY
AFFECT THE FORECAST AT THE END OF THIS PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN ACTIVE. IT IS EXPECTED TO REMAIN IN THIS CATEGORY THROUGH
THE 10TH. ON THE 10TH THE X2 FLARE FROM THE 7TH IS EXPECTED TO
INCREASE ACTIVITY, RAISING THE FIELD TO MINOR STORM LEVELS ON
THE 11TH. TWO FILAMENTS THAT DISSAPPEARED TODAY ARE EXPECTED
TO KEEP THE FIELD AT ACTIVE TO MINOR STORM LEVELS ON THE 12TH.

III. EVENT PROBABILITIES 10 DEC-12 DEC

CLASS M 95/95/95

CLASS X 20/25/25

PROTON 15/15/20

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 08 DEC 241

ESTIMATED 09 DEC 250

PREDICTED 10 DEC-12 DEC 250/250/245

90 DAY MEAN 08 DEC 168

V. GEOMAGNETIC A INDICES

OBSERVED AFR 07 DEC 019 AP 08 DEC 028

ESTIMATED AFR 08 DEC 025 AFR/AP 09 DEC 015/017

PREDICTED AFR/AP 10 DEC-12 DEC 020/025-035/040-025/030

SOLTERWARN

BT

HRUS"3 BOU 092200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 343B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 09 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
09/1200Z TO 09/2100Z:

SOLAR ACTIVITY CONTINUED AT MODERATE LEVELS DURING THIS PERIOD.
FIVE M-CLASS EVENTS WERE OBSERVED THIS PERIOD, ALL M1, AT
1343UT, 1554UT A 1B FROM REGION 4014 (N08W34), AT 1413UT,
1739UT A SB FROM REGION 4022 (N12E54) AND 1859UT. REGION 4022 IS
A LARGE E TYPE GROUP WITH A GAMMA DELTA MAGNETIC CONFIGURATION.
NEW REGIONS TODAY ARE 4024 (S08E69) D TYPE AND 4025 (S06E84) A
D TYPE, HOWEVER THIS GROUP MAY NOT BE ALL ON THE DISK.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
CONTINUE AT MODERATE LEVELS WITH REGIONS 4022 AND 4014
APPEARING CAPABLE OF AN ISOLATED X CLASS EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN AT ACTIVE, WITH SHORT PERIODS AT MINOR STORM, DURING THIS
PERIOD. THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT ACTIVE
LEVELS UNTIL LATE ON 10 OR EARLY ON 11 DEC WHEN THE FIELD IS
EXPECTED TO BE AT MINOR STORM LEVELS FOR THE REST OF THE
FORECAST PERIOD. THE PROTON EVENT, WHICH HAD A MAXIMUM OF 1000
PARTICLES/CM2/SEC/STER AT GREATER THAN 10MEV AT 08/1000UT,
CONTINUES IN PROGRESS.

THE PROTON LEVEL AT 2100UT WAS 24 PARTICLES/CM2/SEC/STER AT
GREATER THAN 10MEV THE EVENT IS EXPECTED TO DECLINE BELOW EVENT
THRESHOLD OF 10 PARTICLES/CM2/SEC/STER 10MEV IN THE NEXT 10
HOURS.

THE POLAR CAP ABSORPTION EVENT CONTINUES IN PROGRESS.

III. EVENT PROBABILITIES 10 DEC-12 DEC

CLASS M 95/95/95

CLASS X 20/25/25

PROTON 15/15/20

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 DEC 243

PREDICTED 10 DEC-12 DEC 250/250/245

90 DAY MEAN 09 DEC 169

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 08 DEC 023/028

ESTIMATED AFR/AP 09 DEC 017/025

PREDICTED AFR/AP 10 DEC-12 DEC 020/025-035/040-025/030

SOLTERWARN

BT