

HFUS 1 BOU 101300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 344A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 10 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
09/1200Z TO 10/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE.
NUMEROUS XRAY CLASS M FLARES OCCURRED. SEVEN OF THESE HAD SOME
RADIO BURSTS WITH WAVELENGTHS IN THE CENTIMETER RANGE. THE
LARGEST FLARE WAS AN M8/2B FROM REGION 4022 (N12E53) WITH AN
XRAY MAXIMUM TIME OF 10/0428Z. ANOTHER MAJOR FLARE WAS AN
M5/1B FROM REGION 4014 (N08W35) MAXING IN X RAYS AT 10/0246Z.
THIS FLARE WAS ACCOMPANIED BY A SHORT WAVE FADE TO 30 MHZ. ALL
OF THE XRAY EVENTS THAT COULD BE CORRELATED WITH OPTICAL
OBSERVATIONS CAME FROM THESE TWO REGIONS. OPTICAL FLARES WERE
ALSO OBSERVED IN REGIONS 4021 (S16E37) 4018 (S08W70) AND 4017
(S08E14). REGION 4021 HAS DEVELOPED IN WHITE LIGHT BETWEEN THE
LEADER AND TRAILER SPOTS. MAGNETICALLY REGION 4014 IS A
BETA-GAMMA-DELTA AND REGION 4022 IS A GAMMA DELTA WITH STRONG
DELTAS IN BOTH THE LEADER AND TRAILER REGIONS. THE REST ARE
SIMPLE BETAS OR ALPHAS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE TO HIGH DURING THE FORECAST PERIOD. REGIONS 4014,
4022, 4021, AND POSSIBLY A RETURNING REGION ARE CAPABLE OF
ISOLATED X CLASS XRAY EVENTS. AN X CLASS EVENT IS LIKELY
DURING THE THREE DAY PERIOD OF THE FORECAST.

II. GEOPHYSICAL SUMMARY AND FORECAST: OVERALL THE GEOMAGNETIC
FIELD HAS BEEN AT ACTIVE CONDITIONS. THE FIELD STARTED THE
PERIOD AT ACTIVE LEVELS, DECREASED TO UNSETTLED FOR MOST OF THE
PERIOD, AND THEN ROSE TO MAJOR STORM LEVELS DURING THE LAST SIX
HOURS. THE FIELD IS EXPECTED TO DROP TO MINOR STORM LEVELS
TODAY. IT IS THEN EXPECTED TO DECREASE TO ACTIVE CONDITIONS BY
THE 13TH.

III. EVENT PROBABILITIES 11 DEC-13 DEC

CLASS M 95/95/95

CLASS X 30/30/30

PROTON 15/20/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 DEC 243

ESTIMATED 10 DEC 250

PREDICTED 11 DEC-13 DEC 250/248/245

90 DAY MEAN 09 DEC 169

V. GEOMAGNETIC A INDICES

OBSERVED AFR 08 DEC 023 AP 09 DEC 017

ESTIMATED AFR 09 DEC 017 AFR/AP 10 DEC 026/037

PREDICTED AFR/AP 11 DEC-13 DEC 035/040-025/030-015/020

SOLTERWARN

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HFUS 3 BOU 102200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 344B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 10 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
10/1200Z TO 10/2100Z: SOLAR ACTIVITY HAS CONTINUED AT MODERATE
LEVELS THIS PERIOD WITH

REGION 4014(N07W50) PRODUCING ALL OF THE M CLASS EVENTS A M2 AT
1317UT M1 AT 1748UT AND A M4 AT 1916UT MINOR RADIO WAS OBSERVED
WITH ALL THE EVENTS. REGION 4014 HAS CONTINUED TO EXHIBIT
COMPLEX MAGNETIC CONFIGURATIONS. REGION 4022 (N11E39) HAS BEEN
VERY QUIET THIS PERIOD DESPITE A COMPLEX, GAMMA DELTA, MAGNETIC
FIELD. REGION 4025 (S09E75) MAY BE TWO REGIONS HOWEVER WE WILL
WAIT UNTIL MORE INFORMATION IS AVAILABLE TO SEE IF IT SHOULD BE
TWO GROUPS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
CONTINUE AT MODERATE LEVELS HOWEVER REGION 4022 MAY AWAKE AND
PRODUCE A X CLASS EVENT DURING THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN AT MINOR STORM LEVELS THIS PERIOD. THE FIELD IS EXPECTED
TO CONTINUE AT MINOR STORM UNTIL LATE ON 11 DEC WHEN ACTIVE
CONDITIONS ARE FORECAST TO RETURN FOR THE REMAINDER OF THE
FORECAST PERIOD.

III. EVENT PROBABILITIES 11 DEC-13 DEC

CLASS M 99/99/99

CLASS X 30/30/30

PROTON 20/20/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 10 DEC 279

PREDICTED 11 DEC-13 DEC 280/280/280

90 DAY MEAN 10 DEC 170

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 09 DEC 018/017

ESTIMATED AFR/AP 10 DEC 040/035

PREDICTED AFR/AP 11 DEC-13 DEC 030/030-025/025-015/020

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