

HFUS 1 BOU 121300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 346A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 12 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
11/1200Z TO 12/1200Z: SOLAR ACTIVITY, DESPITE THE MANY LARGE
COMPLEX REGIONS, HAS BEEN LOW DURING THIS PERIOD. THE LARGEST
EVENT RECORDED WAS A C7/SN FROM REGION 4021 (S10E06) AT
11/2057UT. REGIONS 4014 (N07W71), 4022 (N12E18), 4025 (S07E47)
AND 4026 (S11E58) ARE COMPLEX MAGNETICALLY WITH 4022, 4025 AND
4026 CONTAINING DELTAS. EXPECT FOR REGION 4026, WHICH HAS *EXCEPT*
APPARENTLY DOUBLED IN SIZE, ALL REGIONS HAVE BEEN LITTLE
CHANGED THIS PERIOD.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE DURING THIS FORECAST PERIOD. LARGE EVENTS ARE PROBABLE
FROM REGION 4014, 4022 AND 4026. RAPID CHANGE IN ANY OF THE
REGIONS COULD PRODUCE AN X CLASS EVENT AT ANY TIME DURING THE
NEXT THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN GENERALLY UNSETTLED, EXPECT FOR A SHORT PERIOD 11/1930UT
TO 12/0000UT WHEN CONDITIONS AT THE HIGH LATITUDE SITES WERE AT
MINOR STORM LEVELS. ALTHOUGH LARGE M CLASS EVENTS HAVE BEEN
OBSERVED DUE TO THEIR LOCATION AND SMALL INTEGRATED FLUX ONLY
LIMITED EFFECTS ON THE GEOMAGNETIC FIELD IS ARE EXPECTED DURING THE
NEXT THREE DAYS.

III. EVENT PROBABILITIES 13 DEC-15 DEC

CLASS M	95/95/95
CLASS X	35/35/30
PROTON	20/20/20
PCAF	YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED	11 DEC	272
ESTIMATED	12 DEC	270
PREDICTED	13 DEC-15 DEC	260/250/240
90 DAY MEAN	11 DEC	171

V. GEOMAGNETIC A INDICES

OBSERVED AFR	10 DEC	039	AP 11 DEC	218
ESTIMATED AFR	11 DEC	017	AFR/AP 12 DEC	010/020
PREDICTED AFR/AP	13 DEC-15 DEC	008/015-010/015-010/015		

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HFUS 3 BOU 122200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 346B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 12 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
12/1200Z TO 12/2100Z: SOLAR ACTIVITY RETURNED TO MODERATE LEVELS
WHEN REGION 4014 (N08W76) PRODUCED AN M1/SB AT 12/1323Z WITH
MINOR RADIO BURSTS. REGION 4022 (N11E13) HAS AN EXTENSIVE
ACTIVE NEUTRAL LINE FILAMENT, SOME PLAGE GROWTH, AND RISING
MAGNETIC GRADIENTS. REGIONS 4025 (S07E42) AND 4026 (S11E53)
HAVE BEEN QUIET BUT THEY SHARE A COMMON NEUTRAL LINE AND ARE IN
CLOSE PROXIMITY. REGION 4026 IS NOW DISPLAYING TWO DELTAS AND
MAY BE GROWING (PART OF THE AREAL INCREASE REPORTED TODAY MAY
BE A RESULT OF DECREASED FORESHORTENING).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE AT
MODERATE LEVELS. DUE TO THE SIZE AND MAGNETIC COMPLEXITIES OF
CURRENT REGIONS, ONLY SMALL INSTABILITIES ARE REQUIRED TO
RESULT IN AN INCREASE IN THE FREQUENCY OF CLASS M FLARES. MAJOR
FLARES REMAIN POSSIBLE, PRIMARILY FROM REGIONS 4022 AND 4026.
NO SIGNIFICANT ACTIVE REGIONS ARE EXPECTED TO RETURN DURING THE
FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS
ACTIVE EARLY IN THE PERIOD BUT HAS SINCE QUIETED TO UNSETTLED
LEVELS. ISEE DATA SHOW A QUIET SOLAR WIND IN THE EARTH'S
NEIGHBORHOOD. GENERALLY UNSETTLED CONDITIONS WITH ISOLATED
SUBSTORMS ARE EXPECTED TO OCCUR DURING THE FORECAST PERIOD.
AURORAL LATITUDES SHOULD EXPERIENCE A SLIGHTLY HIGHER LEVEL OF
DISTURBANCE.

III. EVENT PROBABILITIES 13 DEC-15 DEC

CLASS M 95/95/95

CLASS X 35/35/30

PROTON 20/20/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 DEC 259

PREDICTED 13 DEC-15 DEC 250/240/235

90 DAY MEAN 12 DEC 173

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 11 DEC 016/018

ESTIMATED AFR/AP 12 DEC 014/020

PREDICTED AFR/AP 13 DEC-15 DEC 008/015-010/015-010/015

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