

HFUS 1 BOU 141300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 348A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 14 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 13/1200Z TO 14/1200Z: SOLAR ACTIVITY WAS MODERATE THIS PERIOD DUE TO A M1/1B EVENT FROM REGION 4026 (S11E33) AT 13/1952UT THIS EVENT PRODUCED MINOR RADIO, 50 FLUX UNITS AT 2695MHZ. REGIONS 4022 (N11W22) AND 4026 CONTINUE TO EXHIBIT LARGE SIZE AND COMPLEX MAGNETIC CONFIGURATIONS AND THEY BOTH CONTAIN DELTAS. BOTH REGIONS 4022 AND 4026 HAVE BEEN REPORTED AS LITTLE CHANGED THIS PERIOD WITH OTHER REGIONS OBSERVED TO HAVE SLIGHTLY DEAYED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS DURING THE FORECAST PERIOD HOWEVER IF SLOW DECAY IN EITHER REGION 4022 OR 4026 OCCURS THEN THE PROBABILITY OF "M" CLASS EVENTS WILL DECREASE. RAPID CHANGE IN THE REGIONS MAY PRODUCE LARGE "M" CLASS OR AN ISOLATED "X" CLASS EVENT DURING THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY QUIET TO SLIGHTLY UNSETLED DURING THIS PERIOD. THE HIGH LATITUDE SITES AGAIN HAD A SHORT PERIOD, 14/0000 TO 14/0300UT, OF MINOR STORM LEVELS. THE FIELD IS EXPECTED TO CONTINUE AT UNSETLED LEVELS UNTIL 17 DEC WHEN ACTIVE CONDITIONS ARE EXPECTED DUE TO A FILAMENT WHICH DISAPPEARED FROM REGION 4017 (S11W42) AROUND 13/1322UT THIS WAS ACCCOMPANIED BY A C3/IF XRAY/OPTICAL EVENT. LIMITED MAGNETIC/OPTICAL DATA PREVENTS DETAILED ANALYSIS HOWEVER IF THE NETURAL LINE THROUGH THE REGION REFORMED IN THE ORIGINAL ORIENTATION THEN ONLY MINOR GEOMAGNETIC FIELD EFFECTS ARE EXPECTED.

III. EVENT PROBABILITIES 15 DEC-17 DEC

CLASS M 90/85/80

CLASS X 30/25/20

PROTON 20/25/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 DEC 247

ESTIMATED 14 DEC 240

PREDICTED 15 DEC-17 DEC 230/225/215

90 DAY MEAN 13 DEC 174

V. GEOMAGNETIC A INDICES

OBSERVED AFR 12 DEC 014 AP 13 DEC 027

ESTIMATED AFR 13 DEC 007 AFR/AP 14 DEC 007/015

PREDICTED AFR/AP 15 DEC-17 DEC 010/015-010/010-017/020

SOLTERWARN

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HFUS 3 BOU 142200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 348B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 14 DEC 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/1200Z TO 14/2100Z: SOLAR ACTIVITY HAS BEEN LOW WITH FREQUENT CLASS C FLARES BEING OBSERVED. REGION 4026 (S11E26) PRODUCED A C7/SB AT 14/2035Z WITH MINOR CM BURSTS. THIS REGION HAS REMAINED STABLE AND RETAINS ITS TWO DELTA CONFIGURATIONS. AN ARCP FILAMENT SYSTEM HAS BEEN NOTED RECENTLY NEAR THE TRAILER DELTA IN 4026. REGION 4022 (N11W13) HAS ALSO REMAINED STABLE IN AREA, RETAINS ITS DELTA, BUT MAY BE LOSING SOME OF ITS INTERIOR SPOTS. REGION 4021 (S16W28) APPEARS TO BE BEGINNING A DECAY PHASE. A SMALL ASYMMETRIC CLASS H SPOT ROTATED ONTO THE DISK AND WAS NUMBERED 4029 (S04E82).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE GENERALLY MODERATE FOR THE FORECAST PERIOD ALTHOUGH WITH DECAY AND SIMPLIFICATION NOTED IN SEVERAL REGIONS, THE FREQUENCY OF THAT LEVEL OF ACTIVITY SHOULD BEGIN TO DECREASE. MAJOR FLARES FROM CURRENT REGIONS REMAIN POSSIBLE BUT THEIR LIKELIHOOD IS ALSO DECREASING. NO SIGNIFICANT ACTIVE REGIONS ARE EXPECTED TO RETURN DURING THE NEXT THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS QUIET FOR THE BULK OF THE PERIOD, BECOMING UNSETTLED AT ISSUE TIME. UNSETTLED CONDITIONS ARE FORECAST TO CONTINUE UNTIL 17 DEC WHEN THE FIELD IS EXPECTED TO BECOME ACTIVE.

III. EVENT PROBABILITIES 15 DEC-17 DEC

CLASS M 90/85/80
CLASS X 30/25/20
PROTON 20/20/15
PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED	14 DEC	243
PREDICTED	15 DEC-17 DEC	235/230/220
90 DAY MEAN	14 DEC	175

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP	13 DEC	306/007
ESTIMATED AFR/AP	14 DEC	006/010
PREDICTED AFR/AP	15 DEC-17 DEC	010/015-010/010-017/022

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