

HFUS 1 BOU 211300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 325A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 21 NOV 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 20/1200Z TO 21/1200Z: SOLAR ACTIVITY HAS BEEN BASICALLY LOW DURING THE PAST 24 HOURS. AN IMPULSIVE SHORT DURATION M1/SB FLARE IN REGION 3467 (S17W69) AT 20/1530Z MAXIMUM WAS THE ONLY SIGNIFICANT EVENT IN AN OTHERWISE QUIET PERIOD. THIS REGION HAS STABILIZED AS A MODERATE SIZED OPEN E-TYPE GROUP WITH ONLY MINOR MAGNETIC ANOMALIES. REGION 3471 (N13W11) IS THE MORE INTERESTING GROUP WITH SEVERAL OPPOSITE POLARITY UMBRAE CONTAINED WITHIN THE SAME SMALL PENUMBRA. THE REGION WHICH IS SLOWING IN GROWTH NOW, HAS MANAGED TO PRODUCE ONLY SUBFLARES DURING ITS DEVELOPMENT STAGE. THE REMAINING FEW DISK REGIONS ARE QUIET. AN ACTIVE PROMINENCE AT S15W90 ERUPTED AT 21/0850Z, REACHING ESCAPE VELOCITY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN LOW. REGION 3471 HAS YET TO PRODUCE AN X-RAY BURST LARGER THAN C2, HOWEVER, DUE TO ITS UNUSUAL STRUCTURE AN ISOLATED M-CLASS EVENT CANNOT BE RULED OUT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED DURING THE PAST 24 HOURS. UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS ARE EXPECTED THROUGH THE NEXT 36 HOURS FOLLOWED BY A GRADUAL RETURN TO QUIET LEVELS.

III. EVENT PROBABILITIES 22 NOV-24 NOV

CLASS M 25/25/25

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 NOV 156

ESTIMATED 21 NOV 152

PREDICTED 22 NOV-24 NOV 146/143/140

90 DAY MEAN 20 NOV 225

V. GEOMAGNETIC A INDICES

OBSERVED AFR 19 NOV 013 AP 20 NOV 014

ESTIMATED AFR 20 NOV 014 AFR/AP 21 NOV 012/015

PREDICTED AFR/AP 22 NOV-24 NOV 015/015-010/012-010/012

SOLTERWARN

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HFUS 3 BOU 012200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 325B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 21 NOVEMBER 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
21/1200Z TO 21/2100Z:

SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 9 HOURS. THE LARGEST
EVENT WAS C5/SB ON THE SOUTHERN EDGE OF REGION 3471 (N13W17)
WHERE A SMALL AREA OF EMERGING FLUX IS VISIBLE. THE SPOT
GROUP CONTINUES AS A PECULAIR AREA OF PENUMBRA ENCOM-
PASSING SMALL SPOTS OF BOTH POLARITIES AND WITH ITS MAJOR AXIS
HIGHLY INCLINED TO THE NORMAL ORIENTATION. SPOT GROWTH IN
THE INTERIOR OF REGION 3467 (S17W77) CONTINUES AND LIMB PROX-
IMITY IS GIVING AN IMPRESSION OF INCREASING MAGNETIC COM-
PLEXITY. REGION 3461 (S05W42) HAS DEVELOPED LARGE ACTIVE
FILAMENTS DISPLACED ABOVE ITS NEUTRAL LINE. EMERGING FLUX
IS OCCURRING NEAR THE CENTER OF THE REGION AT THE TERM-
INUS OF ONE OF THE FILAMENT SEGMENTS. THE REGION APPEARS
LIKE THE REGION OF 29 JULY 1973 JUST PRIOR TO ITS M5/3B
PROTON FLARE. SMALL SPOTS REPRESENTING TWO OR THREE REGIONS
HAVE ROTATED INTO VIEW NEAR NE LIMB (REGION 3473 (N08E55)
AND REGION 3474 (N16E69). ACTIVE PROMINENCES ARE REPORTED
ALONG A LARGE PORTION OF THE NE LIMB.

IB. SOLAR ACTIVITY FORECAST:

AN ISOLATED CLASS M FLARE IS EXPECTED IN THE NEXT 24 HOURS
WHEN FILAMENTS ERUPT FROM REGION 3461. SOLAR INDICES SHOULD
CONTINUE TO DECLINE WITH THE WEST LIMB PASSAGE OF REGION 3467.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS CONTINUED UNSETTLED, BECOMING
SLIGHTLY ACTIVE IN RECENT HOURS. SIMILAR CONDI-
TIONS ARE EXPECTED FOR ANOTHER 18 HOURS. PASSAGE OF A SECTOR
BOUNDARY SHOULD BRING QUIET TO UNSETTLED CONDITIONS.

III. EVENT PROBABILITIES: 22-24 NOV

CLASS M 50/25/25

CLASS X 10/01/01

PROTON 10/01/01

CAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 21 NOV 158

PREDICTED 22-24 NOV 152/148/145

90 DAY MEAN 21 NOV 224

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 20 NOV 13/14

ESTIMATED AFR/AP 21 NOV 15/15

PREDICTED AFR/AP 22-24 NOV 15/15 10/12 10/12

SOLTERWARN

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