

HFUS 1 BOU 201300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 324A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 20 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
19/1200Z TO 20/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE
PAST 24 HOURS. AN OPTICALLY UNCORRELATED M1 FLARE OCCURRED AT
20/0222Z. AN M2/SB FLARE WAS OBSERVED FROM AS YET UNSEEN
SUNSPOT GROUP 4000 (S24E88). THE ONLY INFORMATION THUS FAR ON
THIS AREA IS THAT ACTIVE SURGING AND A SMALL COMPACT PLAGE HAVE
BEEN OBSERVED. REGION 3994 (S13W07) PRODUCED AN M1/1B AT
20/1015Z WITH MODERATE CM BURSTS. THIS REGION HAS AGAIN DOUBLED
ITS AREA IN THE PAST DAY AND IS REPORTED TO HAVE A BETA GAMMA
DELTA MAGNETIC CONFIGURATION. REGION 3994 SHOWS SIGNS OF
CONTINUED GROWTH BUT THE RATE OF GROWTH MAY BE SLOWING. REGION
3987 (S12W73) IS DECAYING RAPIDLY, HAS LOST ITS DELTA, AND HAS
PRODUCED SEVERAL SUBFLARES.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE
MODERATE FOR THE FORECAST PERIOD. REGION 3994 SHOULD CONTINUE
ITS M FLARE PRODUCTION AND A MAJOR FLARE FROM THIS REGION IS A
POSSIBILITY. THE FLARE POTENTIAL OF REGION 4000 CANNOT BE
ACCURATELY ASCERTAINED BUT SINCE THERE WAS NO ACTIVE REGION
VISIBLE AT THIS LOCATION LAST ROTATION, 4000 IS LIKELY IN A
GROWTH STAGE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN QUIET TO SLIGHTLY UNSETTLED FOR THE PAST 24 HOURS. DUE TO
RECURRENCE AND RECENT MODERATE FLARE ACTIVITY, UNSETTLED TO
SLIGHTLY ACTIVE GEOMAGNETIC CONDITIONS ARE EXPECTED FOR THE
NEXT THREE DAYS.

III. EVENT PROBABILITIES 21 NOV-23 NOV

CLASS M 80/70/70

CLASS X 15/10/10

PROTON 10/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 NOV 187

ESTIMATED 20 NOV 195

PREDICTED 21 NOV-23 NOV 200/195/195

90 DAY MEAN 19 NOV 163

V. GEOMAGNETIC A INDICES

OBSERVED AFR 18 NOV 007 AP 19 NOV 009

ESTIMATED AFR 19 NOV 006 AFR/AP 20 NOV 006/015

PREDICTED AFR/AP 21 NOV-23 NOV 016/015-015/015-015/015

SOLTERWARN

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HFUS 3 BOU 202200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 324B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 20 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
20/1200Z TO 20/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PERIOD
BUT FLARE ACTIVITY HAS BEEN NEARLY CONTINUOUS IN REGION
3994(S12W15). A FLARE BEGINNING AT 20/1554Z IS STILL IN
PROGRESS. 1 BRIGHT PEAKS IN H ALPHA WERE OBSERVED AT 1708Z,
1853Z, AND 2008Z. MANY SMALLER PEAKS WERE ALSO OBSERVED AND
CORRESPONDING XRAY PEAKS WERE REPEATEDLY TO C3 WITH A C5 PEAK
IN XRAY OBSERVED AT 1709Z. EXTENSIVE MAGNETIC REORGANIZATION
IS REPORTED IN THE REGION ALONG WITH ARCH FILAMENTS, ACTIVE
DARK FILAMENTS, BRIGHT SURGE AND A FILAMENT DISAPPEARANCE. THE
REGION CONTINUES TO GROW ALTHOUGH MORE SLOWLY IN RECENT HOURS.
REGIONS 3997(S08E36) AND 3998(N12E46) HAVE BEEN ENHANCED THIS
PERIOD. NEW REGION 4000(S21E74) TODAY HAS BEEN STABLE THIS
PERIOD FOLLOWING ITS M CLASS FLARE EARLIER. MORE SPOTS HAVE
BEEN ROTATING INTO VIEW IN THIS REGION DURING THE PERIOD. NEW
REGION 4001(N10W09) TODAY IS GROWING RAPIDLY AND IS REPORTED TO
HAVE BECOME A D SPOT CLASS REGION BY ISSUE TIME.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD RETURN TO
MODERATE WITH MAJOR FLARES POSSIBLE FROM REGIONS 3994, AND
4000, AND PERHAPS ALSO FROM REGION 4001 FOLLOWING SOME
ADDITIONAL GROWTH.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN SLIGHTLY UNSETTLED THIS PERIOD. A MIDLATITUDE K-INDEX OF
3 WAS OBSERVED AT BOULDER IN THE 18-21Z HOURS. EARLIER INDICES
HAVE ALL BEEN 1 IN RECENT HOURS. THE GEOMAGNETIC FIELD IS
EXPECTED TO BE SLIGHTLY UNSETTLED FOR THE FORECAST PERIOD.

III. EVENT PROBABILITIES 21 NOV-23 NOV

CLASS M 80/80/80

CLASS X 15/15/15

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 NOV 193

PREDICTED 21 NOV-23 NOV 196/198/205

90 DAY MEAN 20 NOV 163

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 NOV 008/009

ESTIMATED AFR/AP 20 NOV 004/006

PREDICTED AFR/AP 21 NOV-23 NOV 010/010-010/010-012/015

SOLTERWARN

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