

HFUS 1 BOU 251300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 115A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 25 APR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
24/1200Z TO 25/1200Z: SOLAR ACTIVITY CONTINUES LOW IN SPITE OF
CONTINUED SLOW GROWTH IN A LARGE COMPLEX OF SUNSPOT GROUPS NEAR
THE NORTH CENTRAL MERIDIAN OF THE SUN. NO X-RAY EVENT HAS
EXCEEDED C2 TODAY. GROWTH HAS BEEN OBSERVED IN SIX ACTIVITY
CENTERS AND FOUR REGIONS ARE SLOWLY MERGING AND INTERACTING.
SUCH EVOLUTION USUALLY LEADS TO MAJOR FLARES. A LARGE FILAMENT
AT N35E21 DISAPPEARED BY 0815Z. THIS FILAMENT LAY ON THE
NORTHEAST BORDER OF THE LARGE -SCALE MAGNETIC PATTERN
CONTAINING EIGHT ACTIVE REGIONS AND THE SITE OF THE LARGE
ERUPTION OF 22 APRIL WHICH LED TO THE PRESENT GEOMAGNETIC
STORM. NO ACTIVITY IS REPORTED AT EAST LIMB.

IB. SOLAR ACTIVITY FORECAST: MAJOR FLARES ARE EXPECTED AT
INTERVALS OF 36 HOURS IF GROWTH AND INTERACTION CONTINUE IN
THE LARGE NCENTRAL ACTIVITY COMPLEX.

II. GEOPHYSICAL SUMMARY AND FORECAST: QUIET CONDITIONS CEASED
WITH A SUDDEN COMMENCEMENT OF MAGNETIC STORM AT 24/2023Z OF 43
GAMMAS. ACTIVITY HAS STEADILY INCREASED AND PRESENTLY DISPLAYS
A MAIN PHASE OF MAJOR STORM. A K-INDEX OF 7 WAS RECORDED FOR
0900-1200Z. THIS STORM IS EXPECTED TO CONTINUE FOR ANOTHER 24
HOURS. UNSETTLED CONDITIONS WILL FOLLOW FOR ONLY A DAY OR TWO
BEFORE THE ARRIVAL OF ANOTHER STORM OF LESSER INTENSITY LATE ON
28 APRIL.

III. EVENT PROBABILITIES 26 APR-28 APR

CLASS M 60/60/60
CLASS X 05/05/05
PROTON 01/01/01
PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 24 APR 179
ESTIMATED 25 APR 184
PREDICTED 26 APR-28 APR 188/191/189
90 DAY MEAN 24 APR 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR 23 APR 009 AP 24 APR 012
ESTIMATED AFR 24 APR 012 AFR/AP 25 APR 048/050
PREDICTED AFR/AP 26 APR-28 APR 040/035-015/016-020/022

SOLTERWARN

BT

HXUS BOU 251300

PREDM 06026 06027 06028

PREDX 00526 00527 00528

PREDP 00126 00127 00128

PCAFT 00126

TENCM 18826 19127 18928

AFRED 04026 01527 02028

AFAPF 03526 01627 02228

KKK 54455 43345 54332

BT

HFUS 3 BOU 252200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 115B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 25 APR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 25/1200Z TO 25/2100Z: SOLAR ACTIVITY HAS BEEN VERY LOW DURING THE PAST 9 HOURS DESPITE THE CONTINUED SLOW GROWTH AND RESTRUCTURING OCCURRING IN THE LARGE COMPLEX OF REGIONS IN THE CENTER OF THE NORTHERN HEMISPHERE OF THE SUN. ONLY 5 SMALL C-CLASS SUBFLARES HAVE BEEN NOTED SINCE 1200Z.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO INCREASE TO MODERATE LEVELS AT SOME POINT SOON. THE NORTH CENTRAL COMPLEX IS AMAZINGLY QUIET AT THE MOMENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: A MAJOR GEOMAGNETIC STORM IS IN PROGRESS ALTHOUGH THE FIELD HAS ONLY BEEN UNSETTLED SINCE 25/1500Z. PLASMA WAVE SENSORS ON THE ISEE-3 SPACECRAFT HAVE BEEN DISTURBED ALL DAY. THIS IS THOUGHT TO PORTEND CONTINUATION OF THE MAJOR STORM ACTIVITY THROUGH THE NEXT 24 HOURS.

III. EVENT PROBABILITIES 26 APR-28 APR

CLASS M 60/60/60

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 25 APR 183

PREDICTED 26 APR-28 APR 187/190/188

90 DAY MEAN 25 APR 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 24 APR 019/012

ESTIMATED AFR/AP 25 APR 041/040

PREDICTED AFR/AP 26 APR-28 APR 040/022-015/016-020/022

SOLTERWARN

BT

HXUS BOU 252200

PREDM 06026 06027 06028

PREDX 00526 00527 00528

PREDP 00126 00127 00128

PCAFT 00126

TENCM 18726 19027 18828

AFRED 04026 01527 02028

AFAPF 02226 01627 02228

BT