

HFUS 1 BOU 191300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 200A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 19 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
18/1200Z TO 19/1200Z: SOLAR ACTIVITY HAS BEEN HIGH. REGION 3804
(N14W61) RETURNED TO LIFE PRODUCING AN X1/2B AT 19/0104Z
MAXIMUM, AN M7/1B AT 19/0429Z MAXIMUM, AND AN M2/1B AT 19/0903Z
MAXIMUM. THE X1 WAS ACCOMPANIED BY STRONG TYPE II AND TYPE IV
INTERFEROMETRIC RADIOMETER BURSTS ALONG WITH 720 FU AT 2800MHZ.
THE TWO M-CLASS EVENTS HAD LITTLE ELSE ASSOCIATED WITH THEM.
REGION 3804 HAS DECAYED SIGNIFICANTLY DURING THE PAST 24 HOURS,
BUT STILL DISPLAYS STRONG MAGNETIC GRADIENTS IN THE CENTRAL
PORTION OF THE REGION. PENUMBRA AREA, SPOT COUNT, AND EXTENT
HAVE DIMINISHED, BUT PLAGE BRIGHTNESS AND FLUCTUATIONS
CONTINUE. REGIONS 3810/3812 (CENTERED AT N16W18), WHEN
COMBINED, HAVE TAKEN OVER AS THE MOST DOMINATE DISK FEATURE IN
H-ALPHA. REGION 3812 (N20W18) PRODUCED AN M1/1B AT 19/0841Z
MAXIMUM. REGION 3810 (N11W18) IS THE LARGER AND MORE
MAGNETICALLY COMPLEX OF THE TWO REGIONS, BUT HAS ONLY MANAGED
TO PRODUCE SEVERAL SUBFLARES DURING THE PERIOD. THE REMAINING
DISK REGIONS HAVE CHANGED LITTLE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
MODERATE TO HIGH. ALTHOUGH A GENERAL DECREASE IS FORECAST IN
THE 10.7CM RADIO FLUX AND SPOT NUMBER, X-CLASS ACTIVITY IS
STILL POSSIBLE FROM REGION 3804 AND THE 3810/3812 COMPLEX. THE
CURRENT X-RAY BACKGROUND HAS BEEN STEADY AT M1 FOR
APPROXIMATELY 4 HOURS, INDICATING SOME DEVELOPMENT IN ONE OF
THESE TWO COMPLEXES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
ACTIVE DURING THE PAST 24 HOURS. A SUDDEN COMMENCEMENT IS
EXPECTED LATER TODAY (APPROX 18-22Z) IN RESPONSE TO THE X3/2B
FLARE FROM REGION 3804 ON 17 JULY AT 1028Z. THE STRONGEST
RESPONSE TO THIS FLARE IS FORECAST TO COME ON THE 20TH, WITH
MINOR STORM LEVELS EXPECTED. THE REMAINDER OF THE PERIOD SHOULD
EXPERIENCE ACTIVE CONDITIONS.

III. EVENT PROBABILITIES 20 JUL-22 JUL

CLASS M 95/95/80

CLASS X 40/30/10

PROTON 30/20/05

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 JUL 246

ESTIMATED 19 JUL 235

PREDICTED 20 JUL-22 JUL 220/200/190

90 DAY MEAN 18 JUL 165

V. GEOMAGNETIC A INDICES

OBSERVED AFR 17 JUL 020 AP 18 JUL 026

ESTIMATED AFR 18 JUL 022 AFR/AP 19 JUL 025/020

PREDICTED AFR/AP 20 JUL-22 JUL 035/035-020/025-025/020

SOLTERWARN

BT

HXUS BOU 192200
PREDM 09520 09521 08022
PREDX 04020 03021 01022
PREDP 03020 02021 00522
PCAFT 00220
TENCM 20520 19021 18022
AFRED 03520 02021 02522
AFAPF 03520 02521 02022
BT

HFUS 3 BOU 192200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 200B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 19 JUL 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
19/1200Z TO 19/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE
PAST 9 HOURS. SMALL CLASS M EVENTS HAVE OCCURRED IN REGION
3804(N15W66) AT 1815Z AND 2020Z, IN REGION 3810(N14W22) AT
1253Z AND IN REGION 3812(N20W23) AT 1850Z. LOCALIZED GROWTH OF
SUNSPOTS IN REGIONS 3804 AND 3810 APPEARS TO ACCOUNT FOR THE
RESURGENCE OF ACTIVITY IN THESE REGIONS. OTHERWISE, THESE AND
ALL OTHER ACTIVE REGION NOW VISIBLE ARE DECLINING. THIS
DECLINE IS REFLECTED IN THE SHARP DROP IN THE 10 CM RADIO FLUX.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN MODERATE FOR THE NEXT TWO OR THREE DAYS AS REGION 3804
TRANSITS WEST LIMB. AN ISOLATED CLASS X EVENT IS STILL
POSSIBLE. PROTON EMISSION IS BECOMING LESS LIKELY AS THE
MAGNETIC STRUCTURE IN REGION 3804 SIMPLIFIES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN IN MINOR STORM CONDITION THROUGHOUT THIS PERIOD. THIS
STORM IS EXPECTED TO INTENSIFY DURING THE NEXT 36 HOURS.
ANOTHER INCREASE IN ACTIVITY IS EXPECTED ON 22 JULY AS A RESULT
OF THE FILAMENT DISAPPEARANCE AND X1 FLARE OF THE PAST DAY.

III. EVENT PROBABILITIES 20 JUL-22 JUL

CLASS M 95/95/80
CLASS X 40/30/10
PROTON 30/20/05
PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX
OBSERVED 19 JUL 227
PREDICTED 20 JUL-22 JUL 205/190/180
90 DAY MEAN 19 JUL 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 JUL 022/026
ESTIMATED AFR/AP 19 JUL 025/020
PREDICTED AFR/AP 20 JUL-22 JUL 035/035-020/025-025/020

SOLTERWARN

BT

HXUS BOU 192200
PREDM 09520 09521 08022
PREDX 04020 03021 01022
PREDP 03020 02021 00522
PCAFT 00220
TENCM 20520 19021 18022
AFRED 03520 02021 02522
AFAPF 03520 02521 02022
BT