

HFUS 1 BOU 211300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 111A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 21 APR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
20/1200Z TO 21/1200Z: SOLAR ACTIVITY HAS BEEN VERY LOW FOR THE
PAST 24 HOURS. FLUCTUATIONS IN THE X-RAY BACKGROUND FLUX HAVE
NOT EXCEEDED $1E-3$ ERG/CM²/SEC (C1) AND NO OPTICAL FLARES HAVE
BEEN OBSERVED. REGION 3696 (S19W53) HAS DECAYED TO A SIMPLE
B-TYPE GROUP ALTHOUGH THERE IS STILL A GOOD MAGNETIC GRADIENT
NEAR THE LEADER SPOT WHERE THE DELTA WAS YESTERDAY. THE MOST
INTERESTING GROUPS ON THE DISK ARE THE CLOSELY-SPACED REGIONS
3701 (N05E50), 3702 (N12E50), AND 3703 (N20E44). REGIONS 3701
AND 3702 SHARE A COMMON NEUTRAL LINE AND THERE IS AN ACTIVE
DARK FILAMENT BETWEEN THEM. REGION 3703 CONTAINS A STRONG ARCH
FILAMENT SYSTEM IN ITS CENTER. DARK SURGES HAVE BEEN OBSERVED
FROM ALL THREE REGIONS. WHILE THESE REGIONS ARE STILL
MAGNETICALLY SIMPLE, THIS IS THE THIRD DISK TRANSIT OF AN
ACTIVE CENTER AT THAT LOCATION AND THE PREVIOUS TWO REGIONS,
3625 AND 3659, EACH PRODUCED SIGNIFICANT FLARES. ALL OTHER
REGIONS ON THE VISIBLE DISK ARE SIMPLE AND NO LIMB ACTIVITY IS
OCCURRING.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
LOW. UNLESS CONSIDERABLE DEVELOPMENT OCCURS IN THE
3701/3702/3703 COMPLEX, SIGNIFICANT FLARES ARE UNLIKELY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED TO ACTIVE FOR THE PAST 24 HOURS. THESE
CONDITIONS ARE EXPECTED TO CONTINUE AND INTENSIFY TOMORROW IN
RESPONSE TO A HIGH SPEED SOLAR WIND STREAM PRESENTLY IMPACTING
THE EARTH. GEOMAGNETIC ACTIVITY SHOULD DECREASE ON 23 APRIL,
BECOMING QUIET BY THE END OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 22 APR-24 APR

CLASS M 15/15/15
CLASS X 01/01/01
PROTON 01/01/01
PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 APR 143
ESTIMATED 21 APR 146
PREDICTED 22 APR-24 APR 150/154/158
90 DAY MEAN 20 APR 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR 19 APR 008 AP 20 APR 020
ESTIMATED AFR 20 APR 019 AFR/AP 21 APR 015/016
PREDICTED AFR/AP 22 APR-24 APR 018/017-012/012-007/010

SOLTERWARN

BT

HXUS BOU 211300
PREDM 01522 01523 01524
PREDX 00122 00123 00124
PREDP 00122 00123 00124
PCAFT 00122
TENCM 15022 15423 15824
AFRED 01822 01223 00724
AFAPF 01722 01223 01024
KKK 33443 32333 43332
BT

HFUS 3 BOU 212200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 111B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 21 APR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
21/1200Z TO 21/2100Z: SOLAR ACTIVITY HAS CONTINUED AT A VERY LOW
LEVEL AGAIN THIS PERIOD. ARCH FILAMENT SYSTEMS HAVE BEEN
OBSERVED IN REGIONS 3702 (N12E46) AND 3703 (N19E39). ONLY ONE
OPTICAL FLARE HAS BEEN OBSERVED DURING THE PAST 41 HOURS, A SF
FROM REGION 3702 AT 1251UT ON 21 APRIL.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
CONTINUE AT A LOW LEVEL DURING THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN ACTIVE. THE FIELD IS EXPECTED TO CONTINUE AT ACTIVE LEVELS
UNTIL LATE ON 22 APRIL WHEN UNSETTLED CONDITIONS ARE EXPECTED.

III. EVENT PROBABILITIES 22 APR-24 APR

CLASS M 15/15/15

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 21 APR 144

PREDICTED 22 APR-24 APR 150/154/158

90 DAY MEAN 21 APR 201

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 20 APR 020/020

ESTIMATED AFR/AP 21 APR 021/025

PREDICTED AFR/AP 22 APR-24 APR 018/012-012/012-007/010

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HXUS BOU 212200

PREDM 01522 01523 01524

PREDX 00122 00123 00124

PREDP 00122 00123 00124

PCAFT 00122

TENCM 15022 15423 15824

AFRED 01822 01223 00724

AFAPF 01222 01223 01024

BT