

HFUS 1 BOU 221300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 112A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 22 APR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
21/1200Z TO 22/1200Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST
24 HOURS. DESPITE NEAR-CONTINUOUS OBSERVING CONDITIONS, ONLY
TWO OPTICAL SUBFLARES HAVE BEEN SEEN. THESE OCCURRED IN REGIONS
3702 (N12E39) AND 3703 (N19E32), BOTH OF WHICH ARE SHOWING
SIGNS OF GROWTH INCLUDING STRONG ARCH FILAMENT SYSTEMS (AFS),
ACTIVE DARK FILAMENTS, PLAGE FLUCTUATIONS, AND BRIGHT POINTS. A
LARGE ACTIVE FILAMENT SEPARATING REGIONS 3702 AND 3701 (N05E37)
IS PARTICULARLY INTERESTING AND INDICATES THAT THE TWO REGIONS
ARE INTERACTING. MEANWHILE, THE BUSY NORTHEAST QUADRANT HAS
GAINED TWO NEW REGIONS, BOTH OF WHICH ARE EXHIBITING AFS. THEY
ARE SMALL B-TYPE GROUPS LOCATED NEAR N04E12 AND N20E56. REGION
3696 (S19W68) HAS DECAYED TO THE POINT THAT IT IS NO LONGER
CONSIDERED ERUPTIVE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
CONTINUE LOW. HOWEVER, REGIONS ON THE NORTHEAST SOLAR QUADRANT
SHOULD BE MONITORED FOR DEVELOPMENT POTENTIALLY LEADING TO
SIGNIFICANT FLARES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN AT ACTIVE TO MINOR STORM LEVELS FOR THE PAST 24 HOURS IN
RESPONSE TO A HIGH-SPEED SOLAR WIND STREAM FROM A CORONAL HOLE.
THE EARTH IS EXPECTED TO EMERGE FROM THIS STREAM WITHIN THE
NEXT 12 HOURS AND THE GEOMAGNETIC FIELD SHOULD THEN BECOME
QUIET.

III. EVENT PROBABILITIES 23 APR-25 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
ESTIMATED 22 APR 146
PREDICTED 23 APR-25 APR 148/150/152
90 DAY MEAN 21 APR 201

V. GEOMAGNETIC A INDICES

OBSERVED AFR 20 APR 020 AP 21 APR 026
ESTIMATED AFR 21 APR 021 AFR/AP 22 APR 020/025
PREDICTED AFR/AP 23 APR-25 APR 012/012-007/010-007/016

SOLTERWARN

BT

HXUS BOU 221300

PREDM 01523 01524 01525

PREDX 00123 00124 00125

PREDP 00123 00124 00125

PCAFT 00123

TENCM 14823 15024 15225

AFRED 01223 00724 00725

AFAPF 01223 01024 01625

KKK 33233 32223 32222

BT

HFUS 3 BOU 222200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 112B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 22 APR 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
22/1200Z TO 22/2100Z: SOLAR ACTIVITY WAS MODERATE THIS PERIOD
DUE TO A M1/2B HYDER FLARE FROM REGION 3702 (N11E33) ON 22
APRIL 1330UT. THIS EVENT PRODUCED A 180 FLUX UNIT BURST AT
2695MHZ WITH A STRONG SHORT WAVE FADE UP TO 18MHZ. THE FLARE
INCLUDED REGIONS 3701 (N06E32) AND NEW REGION 3706 (N22E49).
THE FILAMENT WHICH CONNECTED REGIONS 3701 AND 3702 IS NO LONGER
VISIBLE. ARCH FILAMENT SYSTEMS ARE REPORTED IN REGIONS 3702,
3701, 3706 AND 3705 (N06E06). SOME GROWTH HAS BEEN REPORTED IN
REGION 3702 AND 3703 (N19E26).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
CONTINUE LOW.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN UNSETTLED. THE FIELD IS EXPECTED TO BE UNSETTLED TO QUIET
UNTIL 25 APRIL WHEN MINOR TO MAJOR STORM CONDITIONS ARE
EXPECTED AT THE RESULT OF THE M1/2B EVENT.

III. EVENT PROBABILITIES 23 APR-25 APR

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

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 APR 153
PREDICTED 23 APR-25 APR 148/150/152
90 DAY MEAN 22 APR 201

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 APR 027/026
ESTIMATED AFR/AP 22 APR 020/025
PREDICTED AFR/AP 23 APR-25 APR 012/012-007/010-030/030

SOLTERWARN

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HXUS BOU 222200

PREDM 01523 01524 01525
PREDX 00123 00124 00125
PREDP 00123 00124 00125
PCAFT 00123
TENCM 14823 15024 15225
AFRED 01223 00724 03025
AFAPF 01223 01024 03025

BT