

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

HFXS 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 UNSETLED. THE FIELD IS EXPECTED TO BE UNSETLED 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

BT

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