

HFUS 1 BOU 071300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 038A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 07 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
06/1200Z TO 07/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE WITH
SEVEN CLASS M EVENTS, ALL OCCURRING ON 06 FEBRUARY. REGION 3576
(S14W81) PRODUCED A M6/2B FLARE AT 2050Z WITH MODERATE SHORT
WAVE FADE AND A 780 FU BURST RECORDED AT 2695 MHZ. THIS SAME
REGION FOLLOWED WITH A M4/1N FLARE AT 2350Z; EJECTA TO 0.5R
OCCURRED WITH THIS FLARE. CENTIMETRIC BURSTS WERE MINOR BUT A
TYPE II DEKAMETRIC BURST OCCURRED WITH THIS FLARE. REGION 3576
IS NOW TOO CLOSE TO THE LIMB FOR PROPER EVALUATION. REGION
3594 (S09E42) PRODUCED A M1/2B AT 1534Z (MAX). A 200 FU BURST AT
2695 MHZ AND MODERATE SHORT WAVE FADE ACCOMPANIED THIS FLARE.
THIS REGION ALSO PRODUCED A M1/1B FLARE AT 1720Z. MOST OF THE
FLARES IN REGION 3594 HAVE OCCURRED ON THE SW CORNER OF THE
LARGE LEADER SPOT WHERE AN ANOMOLOUS POLE EXISTS. THIS REGION
IS RESTRUCTURING BUT A GENERAL PENUMBRAL DECAY IN THE TRAILER
PORTION HAS BEEN REPORTED. REGION 3583 (S19W45) IS
RESTRUCTURING BUT RETAINS A COMPLEX NEUTRAL LINE. REGIONS 3592
(N15W45) AND 3595 (S06W50) ARE GROWING IN SUNSPOT STRUCTURE.
SUNSPOTS ARE REPORTED ROTATING ON TO THE DISK NEAR SE07 AND
SE12.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN MODERATE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN ACTIVE WITH OCCASIONAL SUBSTORM ACTIVITY PRODUCING
MID-LATITUDE K-5 VALUES. GENERALLY UNSETTLED TO ACTIVE
CONDITIONS ARE EXPECTED THROUGH THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 08 FEB-10 FEB

CLASS M 80/80/80

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 06 FEB 252

ESTIMATED 07 FEB 242

PREDICTED 08 FEB-10 FEB 230/218/210

90 DAY MEAN 06 FEB 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR 05 FEB 025 AP 06 FEB 032

ESTIMATED AFR 06 FEB 030 AFR/AP 07 FEB 020/028

PREDICTED AFR/AP 08 FEB-10 FEB 013/020-011/018-010/015

SOLTERWARN

BT

HXUS BOU 071300

PREDM 08008 08009 08010

PREDX 01008 01009 01010

PREDP 01008 01009 01010

PCAFT 00108

TENCM 23008 21809 21010

AFRED 01308 01109 01010

AFAPF 02008 01809 01510

KKK 22344 33333 44433

BT

KBOU

HFUS 3 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 038B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 07 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
07/1200Z TO 07/2100Z:

REGION 3576 (S13W84) PRODUCED AN X1/2B AT 071258Z (MAX) AND THEN THE DISK WENT INTO A LULL. THE X1/2B HAD A 1300 FLUX UNIT BURST AT 10CM AND SHORTW;3 !ADES TO 22 MHZ. REGION 3576 IS NOW CROSSING WEST LIMB. REGION 3594 (S08E34) REMAINS LARGE, COMPLEX AND IS CURRENTLY PRODUCING AN M3/2B (07/2105Z MAX). THE FIRST SIGNIFICANT FLARE SINCE THE X1/2B AT 071258Z. THE OTHER DISK FEATURES ARE ESSENTIALLY QUIET. FOUR NEW REGIONS WERE NUMBERED TODAY: 3599 (S19E23), 3600 (S07E61), 3601 (S12E70) AND 3602 (N16E77). ONLY 3601 APPEARS TO HAVE ANY POTENTIAL AT THIS POINT.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD BE AT MODERATE LEVELS DURING THE COMING 24 HOURS. REGION 3576 COULD PRODUCE ADDITIONAL ENERGETIC ACTIVITY BEFORE IT DEPARTS THE VISIBLE DISK AND REGION 3594 RETAINS ITS POTENTIAL FOR SIGNIFICANT ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS AT MINOR STORM LEVELS EARLIER TODAY BUT HAS SINCE BECOME UNSETTLED. QUIET TO UNSETTLED CONDITIONS SHOULD PERSIST FOR THE NEXT THREE DAYS. THE X1/2B AT 071258Z PRECIPITATED AN ENHANCEMENT IN THE 10 MEV PARTICLE FLUX THAT HOVERED NEAR EVENT THRESHOLDS BETWEEN 071400Z AND 07/1600Z.

III. EVENT PROBABILITIES: 08 FEB - 10 FEB

CLASS M 80/80/80

CLASS X 10/10/10

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 07 FEB 247

PREDICTED 08-10 FEB 237/227/219

90 DAY MEAN 07 FEB 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 06 FEB 29/32

ESTIMATED AFR/AP 07 FEB 18/20

PREDICTED AFR/AP 08-10 FEB 13/20 11/18 10/15

SOLTERWARN

BT