

HFUS 1 BOU 131300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 044A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 13 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 12/1200Z TO 13/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 3594 (S10 W43) HAS PRODUCED AN M1/SN FLARE AT 12/1313Z AND AN M4/1N AT 12/2138Z. BOTH FLARES WERE ACCOMPANIED BY SMALL CENTIMETRIC RADIO BURSTS. NUMEROUS C CLASS FLARES HAVE BEEN OCCURRING IN REGION 3594 AND IN REGION 3603 (S09 W23) AND MANY OF THESE HAVE ALSO BEEN ASSOCIATED WITH MINOR RADIO BURSTS. ADDITIONALLY, OVER 30 TYPE III RADIO BURSTS WERE REPORTED ON 12 FEB AND THESE CONTINUE TODAY. LITTLE CHANGE OTHER THAN SLOW DECAY IS REPORTED IN THE 3594/3603 COMPLEX. THE NEWER ACTIVITY CENTER NEAR EAST LIMB (INCLUDING REGION 3607 AT N03 E63) APPEARS LIKELY TO INCLUDE TWO DISCRETE SPOT GROUPS AND ONE MAY BE MAGNETICALLY COMPLEX. THE CENTER IS IN THE MIDST OF OLD. RETURNING ACTIVE REGIONS AND IF FLARE ACTIVITY BEGINS TO INCREASE THERE, SIGNIFICANT GEOPHYSICAL EFFECTS ARE LIKELY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE AS SLOW DECAY CONTINUES IN THE FLARE PRODUCING REGIONS. REGION 3607 APPEARS TO BE THE TYPE OF SITUATION WHERE MAJOR FLARE ACTIVITY BEGINS UNANNOUNCED AND THAT POSSIBILITY WILL BE PRESENT FOR THE NEXT SEVERAL DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS REMAINED ACTIVE THROUGH THE PAST 24 HOURS. THE CURRENT DISTURBANCE IS EXPECTED TO DECAY SLOWLY TO UNSETTLED CONDITIONS OVER THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 14 FEB-16 FEB

CLASS M 95/85/75

CLASS X 20/15/10

PROTON 20/15/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 12 FEB 210

ESTIMATED 13 FEB 206

PREDICTED 14 FEB-16 FEB 203/195/180

90 DAY MEAN 12 FEB 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR 11 FEB 029 AP 12 FEB 027

ESTIMATED AFR 12 FEB 024 AFR/AP 13 FEB 030/035

PREDICTED AFR/AP 14 FEB-16 FEB 020/020-015/015-015/013

SOLTERWARN

BT

HXUS BOU 131300

PREDM 09514 08515 07516

PREDX 02014 01515 01016

PREDP 02014 01515 01016

PCAF 00214

TFNCM 20314 19515 18016

AFRED 02014 01515 01516

AFAPF 02014 01515 01316

KKK 44433 33344 44333

BT

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 044B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 13 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
13/1200Z TO 13/2100Z: SOLAR ACTIVITY CONTINUES MODERATE. A NEW
REGION HAS SHOWN ITS POTENTIAL, PRODUCING AN M1/SB AT 13/2058Z
MAXIMUM. THIS REGION, 3607 (N04E52), HAS BEEN FAIRLY DORMANT
SINCE ITS APPEARANCE AT EAST LIMB TWO DAYS AGO. THE DELTA IT
DISPLAYED YESTERDAY HAS NOW SEPARATED FROM THE LARGE LEADER
SPOT, NOW MAKING THE REGION A STRAIGHT BETA GROUP WITH STRONG
GRADIENTS. THE BIPOLAR GROUP TRAILING THIS REGION BY 10 DEGREES
HAS BEEN NUMBERED 3608 (N06E67). REGION 3594 (S11W51) HAS ONLY
MANAGED C-CLASS SUBFLARES, THE LARGEST A SB AT 1935Z MAXIMUM.
REGION 3602 (N16E01) PRODUCED ITS FIRST FLARE IN SEVERAL DAYS,
A 1N AT 1945Z MAXIMUM. SPOT DEVELOPMENT HAS OCCURRED HERE IN
THE PAST SEVERAL HOURS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE
MODERATE. REGION 3594 HAS APPARENTLY CEASED ITS DECAY AS IT
APPROACHES WEST LIMB, AND ALTHOUGH QUIET DURING THE PAST NINE
HOURS, SHOULD CONTINUE TO PRODUCE M-CLASS EVENTS. AN ISOLATED
X-CLASS EVENT IS POSSIBLE PRIOR TO LIMB ROTATION.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN FLUCTUATING BETWEEN MINOR STORM LEVELS AND ACTIVE
CONDITIONS WITH ALTERNATING K VALUES OF 4 AND 5 OBSERVED AT
BOULDER. THE ACTIVITY IN THE FIELD SHOULD GRADUALLY DIMINISH
DURING THE NEXT THREE DAYS, WITH ACTIVE LEVELS EXPECTED
TOMORROW APPROACHING THE UNSETTLED CATEGORY BY THE 16TH.

III. EVENT PROBABILITIES 14 FEB-16 FEB

CLASS M 95/85/75

CLASS X 20/15/10

PROTON 20/15/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 FEB 213

PREDICTED 14 FEB-16 FEB 203/195/180

90 DAY MEAN 13 FEB 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 12 FEB 027/027

ESTIMATED AFR/AP 13 FEB 030/035

PREDICTED AFR/AP 14 FEB-16 FEB 020/020-015/015-015/013

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