

HFUS 1 ROU 111300  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 042A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 1300Z 11 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
10/1200Z TO 11/1200Z: SOLAR ACTIVITY CONTINUES AT A MODERATE  
LEVEL WITH CLASS M FLARES BEING OBSERVED. REGION 3594 (S10  
W18) PRODUCED AN M3/2B AT 10/1856UT AND REGION 3603 (S09 W02)  
FOLLOWED WITH AN M3/1B AT 10/2002UT. THE FLARE IN REGION 3603  
WAS VERY IMPULSIVE AND WAS ACCOMPANIED BY A DARK SURGE RUNNING  
TO THE SE. SOME REORGANIZATION CONTINUES IN THIS COMPLEX,  
HOWEVER, THE TREND SEEMS TO BE TOWARD SIMPLIFICATION.  
MAGNETICALLY, REGION 3594 CONTINUES AS A BETA-GAMMA-DELTA. THE  
REMAINING DISK REGIONS ARE BASICALLY STABLE OR DECLINING.  
REGION 3602 (N15 E33), THE SOURCE OF YESTERDAY'S M3/3B, REMAINS  
A SIMPLE H TYPE SPOT GROUP, ALTHOUGH, SOME TRANSIENT SPOTS WERE  
REPORTED WEST OF THE H TYPE SPOT EARLIER IN THE DAY. MINOR  
ACTIVITY IS BEING REPORTED ON THE WEST LIMB IN THE AREA OF  
DEPARTED REGIONS 3592, 3595, AND 3583. SOME SURGE ACTIVITY WAS  
OBSERVED ON THE EAST LIMB BETWEEN SE05-NE10.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE AT  
A MODERATE LEVEL THROUGH THE FORECAST PERIOD. MAJOR FLARES  
REMAIN A GOOD POSSIBILITY FROM THE 3594/3603 COMPLEX. THIS  
AREA SHOULD BE MONITORED FOR REJUVENATION.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS  
ACTIVE TO MINOR STORM LEVELS EARLY IN THE PERIOD. THE SOURCE OF  
THIS DISTURBANCE IS BEING ATTRIBUTED TO FLARES EARLIER IN THE  
WEEK FROM REGION 3576 (NOW BEYOND THE WEST LIMB). THE FIELD  
IS NOW AT UNSETTLED LEVELS AND IS EXPECTED TO REMAIN SO THRU  
THE EARLY PART OF THE FORECAST PERIOD. ACTIVE CONDITIONS ARE  
AGAIN EXPECTED ON 12 FEB AS A RESULT OF RECENT FLARE ACTIVITY.

III. EVENT PROBABILITIES 12 FEB-14 FEB

CLASS M 95/95/95

CLASS X 25/25/25

PROTON 25/25/25

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 10 FEB 219

ESTIMATED 11 FEB 210

PREDICTED 12 FEB-14 FEB 199/191/187

90 DAY MEAN 10 FEB 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR 09 FEB 013 AP 10 FEB 025

ESTIMATED AFR 10 FEB 030 AFR/AP 11 FEB 015/024

PREDICTED AFR/AP 12 FEB-14 FEB 012/020-025/025-015/020

SOLTERWARN

BT

HXUS ROU 111300

PREDM 09512 09513 09514

PREDX 02512 02513 02514

PREDP 02512 02513 02514

PCAFT 00212

TENCM 19912 19113 18714

AFRED 01212 02513 01514

AFAPF 02012 02513 02014

KKK 32223 32223 35443

BT

HFUS 3 BOU 112200  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 042B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 2200Z 11 FEB 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
11/1200Z TO 11/2100Z: SOLAR ACTIVITY WAS NEAR THE MODERATE LEVEL  
DURING THE PAST NINE HOURS, BUT WITH A SLIGHT DECREASE IN THE  
OVERALL LEVEL COMPARED TO THE PREVIOUS 24 HOURS. REGIONS 3603  
(S09W08) AND 3594 (S10W25) HAVE BEEN THE PRIME PRODUCERS OF THE  
ACTIVITY, BUT ALL FLARES HAVE BEEN SUBFLARES ASSOCIATED WITH  
C-CLASS X-RAY EVENTS. THE LARGEST WAS A C7/SN IN REGION 3594 AT  
1613Z MAXIMUM. REGION 3603 HAS SIMPLIFIED SOMEWHAT, WHILE  
REGION 3594 CONTINUES TO RESTRUCTURE BUT RETAINS ITS MAGNETIC  
COMPLEXITY WITH A BETA GAMMA DELTA CLASS SPOT GROUP. BOTH THESE  
REGIONS ARE APPEARING TO EXPEND THEIR ENERGY IN FREQUENT SMALL  
BURSTS RATHER THAN ISOLATED LARGE EVENTS. NEW REGION 3607  
(N03E80) HAS APPEARED AT EAST LIMB, BUT HAS BEEN QUIET THIS  
PERIOD. THIS REGION IS APPARENTLY THE RETURN OF OLD SESC REGION  
3557 (N04, CAR 093, DAO/AREA 290 ON 27 JAN) WHICH PRODUCED  
SEVERAL FLARES LAST ROTATION. THE REMAINING DISK REGIONS HAVE  
BEEN QUIET.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE  
MODERATE WITH AN ISOLATED X-CLASS EVENT POSSIBLE FROM THE  
3594/3603 COMPLEX.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS  
ACTIVE EARLY IN THE PERIOD, BUT SHORTLY AFTER 1500Z A STRONG  
MAIN PHASE STORM WAS OBSERVED AT BOULDER WITH A K VALUE OF SIX  
(6) RECORDED FOR THE 15-18Z PERIOD. THIS RESPONSE COULD  
POSSIBLY BE RELATED TO THE X1/1B FLARE IN REGION 3576 AT  
08/1253Z. THE FIELD CONTINUED AT MINOR STORM TO ACTIVE LEVELS  
THROUGH THE REMAINDER OF THE PERIOD. ACTIVE CONDITIONS ARE  
EXPECTED THROUGH THE NEXT THREE DAYS IN RESPONSE TO RECENT  
FLARE ACTIVITY.

III. EVENT PROBABILITIES 12 FEB-14 FEB

CLASS M 95/95/85

CLASS X 25/25/15

PROTON 25/25/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 11 FEB 221

PREDICTED 12 FEB-14 FEB 215/205/190

90 DAY MEAN 11 FEB 199

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 10 FEB 032/025

ESTIMATED AFR/AP 11 FEB 028/028

PREDICTED AFR/AP 12 FEB-14 FEB 020/020-025/025-015/020

SOLTERWARN

BT

HXUS BOU 112200

PREDM 09512 09513 08514

PREDX 02512 02513 01514

PREDP 02512 02513 01514

PCAFT 00212

TENCM 21512 20513 19014

AFRED 02012 02513 01514

AFAPF 02012 02513 02014

BT