

HFUS 1 BOU 131300  
 FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
 SDF NUMBER 013A  
 JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
 ISSUED 1300Z 13 JAN 1982  
 IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
 12/1200Z TO 13/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION  
 3545 (S18W76) REALIZED ITS POTENTIAL AND PRODUCED AN M1/1B  
 FLARE WHICH MAXED AT 0139 Z. MINOR RADIO NOISE WAS REPORTED  
 ACROSS THE SPECTRUM BUT INCLUDED AN IMPORTANCE 2 TYPE II SWEEP  
 (14 MIN DURATION) AND AN IMPORTANCE 1 TYPE IV STORM (92 MIN  
 DURATION). REGION 3549 (S08E47) APPEARS TO BE DEVELOPING  
 RAPIDLY AND IS EXHIBITING PLAGE FLUCTUATIONS, BRIGHT POINTS,  
 AND AN ARCH FLAMENT SYSTEM. THERE ARE ONLY THREE OTHER SMALL  
 SPOTS VISIBLE ON THE DISK AT THIS TIME.  
 IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE  
 LOW ALTHOUGH REGION 3545 COULD PRODUCE ANOTHER SIGNIFICANT  
 EVENT BEFORE ITS WEST LIMB PASSAGE ON 14 JANUARY. REGION 3549  
 SHOULD BE MONITORED FOR FURTHER DEVELOPMENT AND THERE IS THE  
 POSSIBILITY OF THE EAST LIMB RETURN OF SEVERAL REGIONS OVER THE  
 NEXT THREE DAYS WHICH WERE REASONABLY HEALTHY UPON THEIR WEST  
 LIMB TRANSIT.  
 II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
 BEEN QUIET FOR THE PAST 24 HOURS. DURING A DATA GAP BETWEEN  
 0020 AND 0530Z, THE ISEE-3 INTERPLANETARY SPACECRAFT REGISTERED  
 AN ENHANCEMENT IN SOLAR WIND DENSITY, VELOCITY AND TOTAL  
 MAGNETIC FIELD. HOWEVER THE INTERPLANETARY FIELD IS POINTING  
 MOSTLY NORTHWARD AT THIS TIME. THE GEOMAGNETIC FIELD IS  
 EXPECTED TO REMAIN AT OR NEAR QUIET LEVELS FOR THE NEXT TWO  
 DAYS WITH AN INCREASED PROBABILITY FOR UNSETTLED CONDITIONS ON  
 THE THIRD DAY IN RESPONSE TO TODAY'S FLARE AND AN INFERRED  
 CORONAL HOLE IN THE SOUTHERN SOLAR HEMISPHERE.  
 III. EVENT PROBABILITIES 14 JAN-16 JAN  
 CLASS M 20/20/20  
 CLASS X 01/01/01  
 PROTON 01/01/01  
 PCAF GREEN  
 IV. OTTAWA 10.7 CM FLUX  
 OBSERVED 12 JAN 137  
 ESTIMATED 13 JAN 134  
 PREDICTED 14 JAN-16 JAN 130/130/135  
 90 DAY MEAN 12 JAN 207  
 V. GEOMAGNETIC A INDICES  
 OBSERVED AFR 11 JAN 006 AP 12 JAN 003  
 ESTIMATED AFR 12 JAN 003 AFR/AP 13 JAN 005/008  
 PREDICTED AFR/AP 14 JAN-16 JAN 008/008-008/008-010/008  
 SOLTERWARN  
 BT

HXUS BOU 131300  
 PREDM 02014 02015 02016  
 PREDX 00114 00115 00116  
 PREDP 00114 00115 00116  
 PCAFT 00114  
 TENCN 13014 13015 13516  
 AFRED 00814 00815 01016  
 AFAPF 00814 00815 00816  
 KKK 21232 22222 23222  
 BT

HFUS 3 BOU 132200  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 013B  
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 2200Z 13 JAN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
13/1200Z TO 13/2100Z: SOLAR ACTIVITY DECREASED TO THE LOW LEVEL  
FOLLOWING THE M1/1B FLARE IN REGION 3545 (S17W80) AT 13/0139Z.  
MINOR SURGING HAS BEEN OBSERVED FROM THIS REGION AS IT BEGINS  
ITS WEST LIMB TRANSIT. REGION 3549 (S08E40) IS NOW THE DOMINANT  
DISK REGION OF THE FOUR SPOTTED GROUPS VISIBLE. RAPID GROWTH  
CONTINUES IN THIS D TYPE GROUP WITH SUBFLARE ACTIVITY  
INCREASING. THE EAST LIMB IS QUIET.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN LOW.  
DEVELOPMENT IN REGION 3549 COULD RESULT IN AN ISOLATED M-CLASS  
EVENT DURING THE NEXT THREE DAYS. THE EXPECTED RETURN OF  
SEVERAL ACTIVE REGIONS DURING THE PERIOD SHOULD CAUSE THE SOLAR  
PARAMETERS (SUNSPOT NUMBER AND 10.7 CM FLUX) TO GRADUALLY  
INCREASE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
BEEN QUIET. UNSETTLED CONDITIONS ARE EXPECTED UNTIL 16 JAN,  
WHEN ACTIVE CONDITIONS ARE POSSIBLE AS A RESULT OF TODAY'S M1  
FLARE.

III. EVENT PROBABILITIES 14 JAN-16 JAN

CLASS M 20/20/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 13 JAN 132

PREDICTED 14 JAN-16 JAN 128/130/135

90 DAY MEAN 13 JAN 206

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 12 JAN 002/003

ESTIMATED AFR/AP 13 JAN 005/008

PREDICTED AFR/AP 14 JAN-16 JAN 008/007-008/008-015/015

SOLTERWARN

BT

HXUS BOU 132200

PREDM 02014 02015 02016

PREDX 00114 00115 00116

PREDP 00114 00115 00116

PCAFT 00114

TENCM 12814 13015 13516

AFRED 00814 00815 01516

AFAPF 00714 00815 01516

BT