

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 UNSETLED 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

TENCM 13014 13015 13516

AFRED 00814 00815 01016

AFAPP 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

PCAF 00114

TENCM 12814 13015 13516

AFRED 00814 00815 01516

AFAPF 00714 00815 01516

BT