

HFUS 1 BOU 191300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 019A
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 1300Z 19 JAN 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/1200Z TO 19/1200Z: SOLAR ACTIVITY CONTINUES LOW. THE LARGEST OF SEVERAL SUBFLARES IN THE PAST 24 HOURS WAS A C5/SF FLARE AT 18/1436Z FROM REGION 3559(S15W22). THIS REGION DEVELOPED RAPIDLY DURING THE PAST 48 HOURS AND IS NOW EXPANDING INTO THE TRAILING PORTION OF REGION 3549(S10W34). GROWTH HAS SLOWED IN REGION 3559, BUT ITS MOTION AND INTERACTION WITH REGION 3549 ARE RESULTING IN AN INCREASINGLY COMPLEX MAGNETIC CONFIGURATION. FLUX EMERGENCE IN REGION 3549 HAS FURTHER INCREASED ITS COMPLEXITY ALTHOUGH ITS SPOT GROUP IS LITTLE CHANGED. GROWTH HAS CEASED, OR SLOWED, IN REGION 3553 (S08W57), BUT IT CONTINUES BRIGHT WITH A MODEST CLASS D SPOT GROUP. ALL OTHER REGIONS ON THE DISK REMAIN SMALL AND STABLE. RADIO ACTIVITY IS INCREASING ABOVE THE SE LIMB.

IB. SOLAR ACTIVITY FORECAST: INCREASED FREQUENCY AND MAGNITUDE OF FLARES ARE STILL EXPECTED FROM THE COMPLEX OF REGIONS IN THE SW QUADRANT OF THE SOLAR DISK. THE ADDITION OF SIGNIFICANT REGION(S) AT EAST LIMB MAY ADD TO BOTH THE FLARE ACTIVITY AND THE INTEGRATED SOLAR FLUX.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO QUIET FOR THE PAST 24 HOURS. QUIET TO SLIGHTLY UNSETTLED CONDITIONS ARE EXPECTED THROUGHOUT THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 20 JAN-22 JAN

CLASS M 50/60/70

CLASS X 05/05/10

PROTON 02/05/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 JAN 173

ESTIMATED 19 JAN 173

PREDICTED 20 JAN-22 JAN 176/182/187

90 DAY MEAN 18 JAN 198

V. GEOMAGNETIC A INDICES

OBSERVED AFR 17 JAN 013 AP 18 JAN 012

ESTIMATED AFR 18 JAN 009 AFR/AP 19 JAN 005/010

PREDICTED AFR/AP 20 JAN-22 JAN 005/008-005/010-008/008

SOLTERWARN

BT

HXUS BOU 191300

PREDM 05020 06021 07022

PREDX 00520 00521 01022

PREDP 00220 00521 01022

PCAF 00120

TENCM 17620 18221 18722

AFRED 00520 00521 00822

AFAPF 00820 01021 00822

KKK 11122 11112 22211

BT

HFUS 3 BOU 192200

FROM SPACE ENVIRONMENT SERVICE'S CENTER BOULDER COLO

SDF NUMBER 019B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED RWPPZ 19 JAN 1982

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/1200Z TO 19/2100Z: SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 9 HOURS. A TOTAL OF 8 C-CLASS EVENTS HAVE BEEN OBSERVED BY SATELLITE SENSORS. HOWEVER, DUE TO POOR WEATHER CONDITIONS AT MOST SOLAR OBSERVATORIES, THE EVENTS HAVE NOT BEEN ASSIGNED TO ANY PARTICULAR REGION(S). THE INTENSITY OF SOLAR X-RAY BURSTS, HOWEVER, HAS BEEN SLOWLY INCREASING AS EVIDENCED BY A C5.8 AT 1529Z AND A C9.0 AT 2036Z. SEVERAL SMALL NEW REGIONS HAVE DEVELOPED IN THE EASTERN HEMISPHERE OF THE SUN DURING THE PERIOD.

I B. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN AT LOW TO MODERATE LEVELS. THE LARGE COMPLEX OF ACTIVE REGIONS IN THE SOUTHWEST QUADRANT OF THE SUN RETAINS THE POTENTIAL TO PRODUCE M-CLASS FLARES. SINCE REGIONS 3553 (S07W56) AND 3559 (S14W30) HAVE MORE THAN DOUBLED THEIR SPOT AREAS DURING THE PAST 24 HOURS, THEY ARE THE MOST LIKELY SOURCES OF ACTIVITY OVER THE NEAR TERM.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET DURING THE PAST 9 HOURS. THE FIELD IS EXPECTED TO REMAIN GENERALLY QUIET OVER THE NEXT 72 HOURS.

III. EVENT PROBABILITIES: 20 - 22 JAN 1982

CLASS M . . . 50/60/70

CLASS X . . . 05/05/10

PROTON . . . 02/05/10

PCAF . . . GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 19 JAN . . . 175

PREDICTED 20 - 22 JAN . . . 178/181/184

90 DAY MEAN 19 JAN . . . 197

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 JAN . . . 12/12

ESTIMATED AFR/AP 19 JAN . . . 04/06

PREDICTED AFR/AP 20-22 JAN . . . 05/08 05/10 08/08

SOLTERWARN

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