

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 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/1200Z TO 19/1200Z: SOLAR ACTIVITY REMAINS LOW. THE LARGEST EVENT OF THE PERIOD WAS A C2 XRAY BURST AT 19/0843Z MAXIMUM WHICH WAS ASSOCIATED WITH AN ERUPTIVE PROMINENCE EXTENDING FROM SE09 TO SE24. THE PROMINENCE BEGAN TO ERUPT AT 0754Z AND REACHED EXTENT OF .3 RADII ABOVE THE LIMB. A WEAK TYPE II RADIO SWEEP WAS ASSOCIATED WITH THIS EVENT. A SMALL SPOTLESS PLAGE HAS BEEN OBSERVED AT S14, EAST LIMB, BUT THE TRIGGER TO THIS EPL COULD BE AN ACTIVE REGION STILL BEHIND EAST LIMB. THE SEVEN SPOTTED DISK REGIONS HAVE BEEN GENERALLY QUIET AND LITTLE CHANGED DURING THE PERIOD. REGIONS 4064 (N08W14) AND 4065 (S13W09) HAVE BOTH DISPLAYED SLOW GROWTH AND SOME MAGNETIC COMPLEXITY, BUT HAVE MANAGED ONLY MINOR SUBFLARES DURING THE PERIOD.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN LOW. NO SIGNIFICANT REGIONS ARE EXPECTED BACK AT THE EAST LIMB, HOWEVER, TODAY'S PROMINENCE ERUPTION COULD INDICATE THAT SOME DEVELOPMENT HAS OCCURRED ON THE BACKSIDE OF THE SUN.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE WITH BRIEF PERIODS AT MINOR STORM LEVELS, ESPECIALLY AT HIGHER LATITUDES. A GENERAL DECREASE IN SUBSTORM ACTIVITY HAS BEEN NOTED IN RECENT HOURS HOWEVER. THE FIELD IS EXPECTED TO CONTINUE AT ACTIVE LEVELS THROUGH THE NEXT 24-36 HOURS, FOLLOWED BY UNSETTLED CONDITIONS FOR THE REMAINDER OF THE PERIOD.

III. EVENT PROBABILITIES 20 JAN-22 JAN

CLASS M 10/20/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 JAN 139

ESTIMATED 19 JAN 135

PREDICTED 20 JAN-22 JAN 135/137/140

90 DAY MEAN 18 JAN 176

V. GEOMAGNETIC A INDICES

OBSERVED AFR 17 JAN 020 AP 18 JAN 029

ESTIMATED AFR 18 JAN 023 AFR/AP 19 JAN 015/020

PREDICTED AFR/AP 20 JAN-22 JAN 015/020-010/015-008/015

SOLTERWARN

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HFUS 3 BOU 192200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 019B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 19 JAN 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
19/1200Z TO 19/2100Z: SOLAR ACTIVITY HAS CONTINUED LOW THIS
PERIOD WITH ONLY MINOR ENHANCEMENTS BEING OBSERVED. REGION 4064
(N08W07) HAS BEEN STABLE AND IS A SIMPLE BIPOLAR GROUP NOW.
REGION 4065 (S12W01) HAS ELONGATED INTO A CLASS E GROUP AND IS
EXHIBITING MINOR GROWTH. THE ERUPTIVE PROMINENCE OBSERVED THIS
MORNING AT THE SOUTHEAST LIMB DOES NOT APPEAR TO BE A PRECURSOR
OF THE EAST LIMB TRANSIT OF A SIGNIFICANT ACTIVE REGION.
SYNOPTIC DATA FROM LAST ROTATION SHOW A QUIESCENT SECTOR
BOUNDARY FILAMENT (NOT ACTIVE REGION RELATED) AT THE LOCATION OF
TODAY'S ERUPTION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE
LOW. INTERMITTENT CLASS C FLARES ARE FORECAST FOR THE NEXT
THREE DAYS. NO SIGNIFICANT ACTIVE REGIONS ARE EXPECTED TO
RETURN TO THE EAST LIMB DURING THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS
BEEN ACTIVE AT MID AND HIGH LATITUDES WITH MINOR STORM
CONDITIONS EXPERIENCED AT HIGH LATITUDES BETWEEN 19/1500-1700Z.
GENERALLY ACTIVE CONDITIONS ARE FORECAST TO CONTINUE THROUGH 20
JAN WITH ANOTHER PERIOD AT MINOR STORM LEVELS POSSIBLE DURING
THAT TIME. UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS ARE EXPECTED
FOR 21-22 JAN.

III. EVENT PROBABILITIES 20 JAN-22 JAN

CLASS M 10/10/10

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 JAN 132

PREDICTED 20 JAN-22 JAN 128/126/125

90 DAY MEAN 19 JAN 176

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 JAN 024/029

ESTIMATED AFR/AP 19 JAN 017/020

PREDICTED AFR/AP 20 JAN-22 JAN 015/020-010/015-008/015

SOLTERWARN

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