

HFUS 1 BOU 291300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDE NUMBER 272A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 29 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 28/1200Z TO 29/1200Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. HOWEVER, THE NUMBER OF C-CLASS X-RAY EVENTS IS INCREASING AND MOST OF THE 7 SPOTTED GROUPS ON THE VISIBLE DISK ARE UNDERGOING GROWTH. REGION 3922 (N15E09) HAS BEEN THE MOST ACTIVE IN RECENT HOURS. THIS TRAILER-DOMINANT REGION IS DEVELOPING IN ITS CENTRAL AND LEADER PORTIONS AND HAS SHOWN DARK SURGES AND AN ACTIVE DARK FILAMENT. REGION 3917 (N16W06) IS CONTINUING SLOW GROWTH AND THE TRAILER SPOTS ARE APPARENTLY ROTATING TO THE NORTH. FLARE POTENTIAL REMAINS GOOD IN THIS E-CLASS GROUP OF BETA-GAMMA COMPLEXITY. REGION 3919 (S11W08) IS GROWING AND RESTRUCTURING IN WHITE LIGHT AND MAGNETIC COMPLEXITY. IT CONTAINS AN ACTIVE DARK FILAMENT, AN ARCH FILAMENT SYSTEM, AND IS SHOWING FREQUENT PLAGE FLUCTUATIONS AND BRIGHT POINTS. A NEW BIPOLE GROUP IS DEVELOPING JUST WEST OF 3919 AT S10W16. THE LEADER SPOT OF REGION 3923 (S02E21) IS ENLARGING AND ITS NORTH/SOUTH NEUTRAL LINE IS SHARPLY KINKED. A LARGE ACTIVE PROMINENCE IS ADVANCING OVER THE EAST LIMB NEAR NORTH 14.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. SIGNIFICANT FLARES ARE POSSIBLE FROM REGIONS 3922 AND 3917 WITH SMALLER FLARES ALSO LIKELY FROM 3919 AND 3923.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN MOSTLY UNSETTLED FOR THE PAST 24 HOURS. IN THE ABSENCE OF MAJOR FLARE ACTIVITY, GEOMAGNETIC ACTIVITY IS EXPECTED TO BE UNSETTLED TO OCCASIONALLY ACTIVE FOR THE NEXT WEEK IN RESPONSE TO A VARIABLE SOLAR WIND FROM HELIOLONGITUDES CHARACTERIZED BY A COMPLICATED LARGE-SCALE MAGNETIC PATTERN.

III. EVENT PROBABILITIES 30 SEP-02 OCT

CLASS M 45/45/45

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 28 SEP 196

ESTIMATED 29 SEP 200

PREDICTED 30 SEP-02 OCT 203/205/205

90 DAY MEAN 28 SEP 164

V. GEOMAGNETIC A INDICES

OBSERVED AFR 27 SEP 038 AP 28 SEP 017

ESTIMATED AFR 28 SEP 018 AFR/AP 29 SEP 012/018

PREDICTED AFR/AP 30 SEP-02 OCT 015/015-012/015-015/020

SOLTERWARN

BT

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END OF BUFFER

HFUS 3 BOU 292200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 272B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 29 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/1200Z TO 29/2100Z: SOLAR ACTIVITY CONTINUED LOW THIS PERIOD HOWEVER SEVERAL LARGE C-CLASS EVENTS WERE OBSERVED WITH REGION 3922 (N14E04) A C8/SB AT 1517UT AND A C7/1N AT 1918UT BOTH EVENTS WERE ACCCOMPANIED WITH MINOR RADIO BURSTS. REGION 3919 (S11W13) PRODUCED A C5/SB AT 1841UT, NO RADIO WAS OBSERVED WITH THIS EVENT. REGIONS 3919, 3928 (S09W22) AND 3923 (S02E16) ALL HAVE STRONG ARCH FILAMENTS BEING OBSERVED. REGIONS 3917 (N17W12), 3919 AND 3922 HAVE EXHIBITED SIGNIFICANT GROWTH THIS PERIOD. REGION 3928 IS A NEW GROUP AND IS A "C" TYPE AT THIS TIME.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. M-CLASS EVENTS APPEAR POSSIBLE FROM REGION 3922 OR 3919, IF CHANGE CONTINUES IN THE GROUPS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY UNSETTLED DURING THIS PERIOD. THE FIELD IS EXPECTED TO CONTINUE, UNLESS A MAJOR EVENT OCCURS, AT UNSETTLED TO SLIGHTLY ACTIVE LEVELS DURING THIS FORECAST PERIOD.

III. EVENT PROBABILITIES 30 SEP-02 OCT

CLASS M 45/45/45

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 29 SEP 204

PREDICTED 30 SEP-02 OCT 203/205/205

90 DAY MEAN 29 SEP 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 28 SEP 016/017

ESTIMATED AFR/AP 29 SEP 012/015

PREDICTED AFR/AP 30 SEP-02 OCT 015/015-012/015-015/020

SOLTERWARN

BT