

HFUS 1 BOU 241300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 247A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 04 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200Z TO 04/1200Z: SOLAR ACTIVITY HAS FINALLY BECOME MODERATE DURING THE PAST 24 HOURS. REGION 3886 (N13E32) PRODUCED A LONG-LIVED M6/2B EVENT WHICH MAXED AT 04/0053Z. THE FLARE WAS ORGANIZED ALONG A VERY ACTIVE FILAMENT SOUTH OF THE REGION WHICH EXTENDED WEST INTO REGION 3885 (N10E14). THERE WAS ABOUT 50 PERCENT UMBRAL COVERAGE OF THE MAJOR LEADER SPOT IN 3886. RADIO OBSERVATIONS SHOWED ONLY MINOR ENHANCEMENTS AT CENTIMETRIC FREQUENCIES BUT INCLUDED WEAK TYPE II, IV SWEEPS. FOLLOWING THE ENERGETIC PHASE, THE FLARE SPREAD UNTIL 0345Z WHEN PLAGE ASSOCIATED WITH REGIONS 3886 AND 3885, TOTALING 22 SQUARE DEGREES, WAS FLARE BRIGHT. THE EVENT DECAYED VERY SLOWLY WITH X-RAYS NOT FALLING BELOW THE M-LEVEL UNTIL APPROXIMATELY 0900Z. REGION 3886 IS SHOWING SOME GROWTH AND EMERGING FLUX IN ITS LEADER PORTION BUT IS STILL SINGULARLY UNIMPRESSIVE IN WHITE LIGHT. IT IS CHARACTERIZED BY A COMPLEX SYSTEM OF ACTIVE DARK FILAMENTS AND A PECULIARLY KINKED AND ACTIVE INVERSION LINE. REGION 3883 (S21W09) CONTINUES TO GROW BUT ITS MAGNETIC GRADIENT IS WEAKENING AND IT HAS NOT BEEN ASSOCIATED WITH AN X-RAY EVENT FOR THE PAST 36 HOURS. NEW REGION 3889 (S10E59), A MATURE H-TYPE SPOT, IS THE RETURN OF OLD REGION 3843. SURGING IS BEING REPORTED AT SOUTHEAST 10 AND MAY MARK THE RETURN OF OLD REGION 3856.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. CONTINUED SIGNIFICANT ACTIVITY IS LIKELY FROM REGION 3886 AND REGION 3883 COULD PRODUCE AN ISOLATED M-CLASS EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS RANGED FROM UNSETTLED THROUGH MINOR STORM CONDITIONS FOR THE PAST 24 HOURS. GEOMAGNETIC ACTIVITY IS EXPECTED TO DECLINE TOWARD GENERALLY UNSETTLED LEVELS ON 05 SEPTEMBER AND INTO 06 SEPTEMBER. THE SOLAR EJECTA FROM TODAY'S FLARE COULD REACH THE EARTH LATE ON 06 SEPTEMBER BRINGING A MINOR GEOMAGNETIC STORM BY THE END OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 05 SEP-07 SEP

CLASS M 60/60/60

CLASS X 10/10/10

PROTON 05/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 SEP 173

ESTIMATED 04 SEP 180

PREDICTED 05 SEP-07 SEP 180/180/180

90 DAY MEAN 03 SEP 170

V. GEOMAGNETIC A INDICES

OBSERVED AFR 02 SEP 015 AP 33 SEP 021

ESTIMATED AFR 03 SEP 022 AFR/AP 04 SEP 022/025

PREDICTED AFR/AP 05 SEP-07 SEP 015/020-019/015-040/030

SOLTERWARN

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HFUS 3 BOU 042200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 247B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 04 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 04/1200Z TO 04/2100Z: SOLAR ACTIVITY HAS BEEN RESTRICTED TO CLASS C SUBFLARE TYPE SINCE 041200Z. REGION 3886 (N14323) IS PRODUCING MOST OF THIS ACTIVITY AND IS NOW DESCRIBED AS DYNAMIC. POINT BRIGHTENINGS AND PLAGE FLUCTUATIONS ARE OCCURRING AS THE NEUTRAL LINE GROWS MORE COMPLEX. THE SPOT GROUP HAS SHOWN A RATHER SIGNIFICANT INCREASE IN SIZE. REGION 3893 (S20W15) CONTINUES TO THREATEN AS IT PRODUCES OCCASIONAL SUBFLARES AND BECOMES MORE ORGANIZED. AN ARCH FILAMENT SYSTEM IS LOCATED SOUTHEAST OF LEADER SPOT WHERE POINT BRIGHTENINGS ARE FREQUENT. SMALL SPOTS ARE DEVELOPING AND DECAYING RATHER RAPIDLY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS LIKELY TO BECOME MODERATE IF DEVELOPMENT CONTINUES IN 3886 AND 3883.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS GRADUALLY SUBSIDED FROM THE STORM CONDITIONS OF EARLIER TODAY. ACTIVE CONDITIONS ARE EXPECTED DURING THE NEXT 48 HOURS WITH POSSIBLE MINOR STORM CONDITIONS IN NIGHTTIME SECTORS.

III. EVENT PROBABILITIES 05 SEP-07 SEP

CLASS M 60/60/60

CLASS X 10/10/10

PROTON 05/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 SEP 138

PREDICTED 05 SEP-07 SEP 191/193/193

90 DAY MEAN 04 SEP 170

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 SEP 023/021

ESTIMATED AFR/AP 04 SEP 030/025

PREDICTED AFR/AP 05 SEP-07 SEP 015/020-019/035-040/040

SOLTERWARN

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