

HFUS 1 BOU 271300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 270A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 27 SEP 1982.

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 26/1200Z TO 27/1200Z: SOLAR ACTIVITY WAS BEEN MODERATE DURING THE PAST 24 HOURS. REGION 3917 (N15E19) PRODUCED AN M1/1B FLARE AT 26/2326Z MAXIMUM WHICH WAS ACCCOMPANIED BY MINOR RADIO NOISE ACROSS THE CENTIMETRIC SPECTRUM. THIS REGION AND ITS NEIGHBOR, 3922 (N14E36), ARE EXHIBITING RAPID GROWTH, INCREASINGLY COMPLEX MAGNETIC CHARACTERISTICS, AND THE TWO REGIONS MAY BE INTERACTING. REGION 3919 (S12E18) IS A SOMEWHAT PECULIAR BUT APPARENTLY SIMPLE REGION CONSISTING OF MANY SMALL SPOTS THREADED BY A FILAMENT WHICH DISAPPEARED AT APPROXIMATELY 26/1930Z AND THEN HAS PARTIALLY REFORMED. THIS REGION HAS A PROPENSITY FOR C-CLASS SUBFLARES. SURGING HAS BEEN OBSERVED AT NW15 NEAR THE LOCATION OF DEPARTING REGION 3908 (N16W93), AND AT NE14 NEAR THE LOCATION OF RETURNING REGION 3886 WHICH PRODUCED SEVERAL M-CLASS EVENTS LAST ROTATION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. REGIONS 3917 AND 3922 ARE CAPABLE OF ISOLATED M-CLASS EVENTS. ADDITIONAL DEVELOPMENT IN REGION 3919 AND THE POSSIBILITY OF AN ACTIVE RETURN OF OLD REGION 3886 INDICATE A RISE IN THE EXPECTED 10 CM BACKGROUND FLUX AND THE PROBABILITY OF SIGNIFICANT FLARES OVER THE NEXT THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT MAJOR STORM LEVELS FOR THE PAST 24 HOURS. THE STORM BEGAN GRADUALLY NEAR 0900Z ON 26 SEPTEMBER BUT HAS BEEN QUIETING DOWN SINCE 0300Z TODAY. DURING THE HEIGHT OF THE STORM, ISEE-3 SPACECRAFT DATA INDICATED THAT THE SOLAR WIND DISTURBANCE WAS OF MODERATE VELOCITY (550 KM/SEC), ABOVE-AVERAGE DENSITY (10 CM⁻³), AND WITH A STRONGLY SOUTHWARD INTERPLANETARY FIELD OF APPROXIMATELY 15 GAMMAS. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN AT GENERALLY ACTIVE LEVELS FOR THE REMAINDER OF TODAY AND TOMORROW, BUT WILL TREND TOWARD UNSETTLED CONDITIONS BY THE END OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 28 SEP-30 SEP

CLASS M 25/35/45

CLASS X 01/01/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 26 SEP 186

ESTIMATED 27 SEP 203

PREDICTED 28 SEP-30 SEP 206/210/210

90 DAY MEAN 26 SEP 163

V. GEOMAGNETIC A INDICES

OBSERVED AFR 25 SEP 011 AP 26 SEP 056

ESTIMATED AFR 26 SEP 040 AFR/AP 27 SEP 030/040

PREDICTED AFR/AP 28 SEP-30 SEP 018/025-015/025-015/020

SOLTERWARN

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HFUS 3 BOU 272200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 270B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 27 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 27/1200Z TO 27/2100Z: SOLAR ACTIVITY HAS BEEN LOW DURING THIS PERIOD WITH ONLY SMALL C-CLASS EVENTS BEING OBSERVED. THE LARGEST WAS A C2/SB FROM REGION 3922 (N15E39) AT 1613UT, MINOR RADIO ACROSS THE CENTIMETRIC SPECTRUM. REGIONS 3922 AND 3917 (N16E15) HAVE BEEN GENERALLY STABLE THIS PERIOD WITH ONLY MINOR POINT BRIGHTENINGS BEING OBSERVED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. REGIONS 3917 AND 3922 ARE CAPABLE OF ISOLATED M-CLASS EVENTS. WITH THE RETURN OF OLD REGION 3886 THE 10CM FLUX AND THE PROBABILITY OF SIGNIFICANT FLARES IS EXPECTED TO RISE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN ACTIVE THIS PERIOD. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN AT GENERALLY ACTIVE CONDITIONS DURING THIS FORECAST PERIOD.

III. EVENT PROBABILITIES 28 SEP-30 SEP

CLASS M 25/35/45

CLASS X 01/01/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 27 SEP 191

PREDICTED 28 SEP-30 SEP 206/210/210

90 DAY MEAN 27 SEP 163

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 26 SEP .052/.056

ESTIMATED AFR/AP 27 SEP .036/.040

PREDICTED AFR/AP 28 SEP-30 SEP .018/.025-.015/.025-.015/.020

SOLTERWARN

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