

FUS 3 BOU 202200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 263

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 20 SEP 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/2100 TO 20/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. REGION 4319 (S08E33) , PRODUCED A SUBNORMAL RIBBON FLARE AT 0731 UT. THE FLARE FOLLOWED A DARK FILAMENT ACTIVATION AND DISAPPEARANCE. SEVERAL SUBFLARES OCCURRED IN REGION 4317 (S13W53) ALTHOUGH IT HAS DECAYED IN WHITE LIGHT. NEW REGION 4321 (S11W11) EMERGED TODAY AS A SIMPLE A-TYPE GROUP. SURGING HAS BEEN REPORTED AT THE LOCATION OF THE WEST LIMB DEPARTURE OF 4314 (NW15).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE LOW. NONE OF THE REGIONS ON THE VISIBLE DISK APPEAR CAPABLE OF SIGNIFICANT ACTIVITY. THERE ARE NO RETURNING REGIONS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 19/2100Z TO 20/2100Z: GEOMAGNETIC ACTIVITY HAS BEEN AT ACTIVE TO MINOR STORM LEVELS DURING THE PAST 24 HOURS. THIS ACTIVITY IS ATTRIBUTED TO THE EFFECTS OF A HIGH-SPEED STREAM FROM A POSITIVE-POLARITY SOUTHERN CORONAL HOLE WHICH WAS AT CENTRAL MERIDIAN ON 17 SEPTEMBER.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO CONTINUE ACTIVE FOR APPROXIMATELY THE NEXT 36 HOURS AS A RESULT OF THE CORONAL HOLE. ISOLATED PERIODS AT STORM LEVELS ARE POSSIBLE AT HIGH LATITUDES DURING NIGHTTIME HOURS. GEOMAGNETIC CONDITIONS SHOULD SUBSIDE TOWARD UNSETTLED LEVELS BY THE END OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 21 SEP-23 SEP

CLASS M 05/05/05

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 SEP 100

PREDICTED 21 SEP-23 SEP 100/101/102

90 DAY MEAN 20 SEP 122

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 SEP 032/048

ESTIMATED AFR/AP 20 SEP 018/020

PREDICTED AFR/AP 21 SEP-23 SEP 025/025-019/020-010/010

SOLTERWARN

BT