

HFUS 1 BOU 241300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 328A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 24 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 23/1200Z TO 24/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE WITH M1 X-RAY FLARES HAVING OCCURRED AT 1344Z AND 1451Z. SINCE THEN, ONLY LOW TO MID LEVEL CLASS C X-RAY BURSTS HAVE BEEN RECORDED. WEATHER HAS HAMPERED OPTICAL OBSERVATIONS. HOWEVER, THE DECREASE IN BOTH FREQUENCY AND INTENSITY OF X-RAY AND RADIO BURSTS INDICATE A DIMINUTION IN THE HIGH DEGREE OF INSTABILITY RECENTLY EXHIBITED BY REGION 3994 (S10W64). THIS REGION, HOWEVER, STILL HAS PLAGE ENHANCEMENTS AND POINT BRIGHTENINGS. ENERGETIC FLARE ACTIVITY IS EXPECTED TO RESUME PRIOR TO WEST LIMB PASSAGE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE THROUGH WEST LIMB PASSAGE OF REGION 3994 ON 26 NOVEMBER.

II. GEOPHYSICAL SUMMARY AND FORECAST: FOLLOWING THE SHOCK AT 23/0918Z, THE FIELD WAS UNSETTLED TO ACTIVE UNTIL 1500Z WHEN THE FIELD WENT TO MAJOR STORM LEVEL. THE STORM INTENSITY SLOWLY DIMINISHED TOWARD AN UNSETTLED LEVEL UNTIL 24/0921Z WHEN THE SECOND SUDDEN IMPULSE WAS RECORDED AT BOULDER. FOLLOWING THIS SECOND FLARE INDUCED STORM, THE FIELD IS EXPECTED TO REMAIN ACTIVE THROUGH THE BALANCE OF THE FORECAST PERIOD; RESPONDING TO A NEAR EQUATORIAL CORONAL HOLE. AFTER AN INITIAL PEAK OF 40 P/CM²/SEC/STER ON 22/2140Z, THE PROTON FLUX SLOWLY DECAYED UNTIL 23/2100Z WHEN THE FLUX AGAIN BEGAN TO RISE. ANOTHER PEAK OF 65 WAS REACHED AT 24/0545Z. AFTER A SLIGHT DECAY, THE FLUX ROSE MOMENTARILY TO 120 WITH THE SHOCK FRONT. THE CURRENT FLUX IS NEAR 50. THE CALCULATED PCAF ABSORPTION IS STILL IN PROGRESS; HAVING REACHED A PEAK VALUE OF 4.0 DB AT 25/0930Z FOLLOWING THE SHOCK INJECTION OF PROTONS.

III. EVENT PROBABILITIES 25 NOV-27 NOV

CLASS M 85/60/10

CLASS X 15/10/01

PROTON 15/15/10

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 23 NOV 201

ESTIMATED 24 NOV 190

PREDICTED 25 NOV-27 NOV 170/150/140

90 DAY MEAN 23 NOV 165

V. GEOMAGNETIC A INDICES

OBSERVED AFR 22 NOV 024 AP 23 NOV 039

ESTIMATED AFR 23 NOV 024 AFR/AP 24 NOV 026/040

PREDICTED AFR/AP 25 NOV-27 NOV 030/045-025/030-025/025

SOLTERWARN

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HFUS 3 BOU 242200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 328B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 24 NOV 1982

I.A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 24/1200Z TO 24/2100Z: SOLAR ACTIVITY HAS BEEN LOW SINCE 24/1200Z. THIS INTERVAL SAW A MARKED DECLINE IN FREQUENCY OF RADIO BURSTS AND XRAY BURSTS. REGION 3994(S10W71) IS STILL IMPRESSIVE IN H-ALPHA AND WHITE LIGHT AND APPARENTLY RETAINS ALL OF ITS COMPLEXITY. OBVIOUS GRADIENTS IN BOTH LEADER AND TRAILER REMAIN IN TACT BUT THE PLAGE BRIGHTNESS HAS DECLINED SOMEWHAT. NOT MUCH ELSE HAS CHANGED.

I.B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE AT LOW TO MODERATE LEVELS. A RESURGENCE OF M FLARE PRODUCTION IS STILL LIKELY FROM 3994.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD DECLINED TO ACTIVE CONDITIONS AFTER THE MAJOR STORM CONDITIONS OF EARLIER TODAY. THE FIELD IS EXPECTED TO VACILLATE BETWEEN ACTIVE AND STORM CONDITIONS FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 25 NOV-27 NOV

CLASS M 85/60/10

CLASS X 15/10/01

PROTON 15/15/10

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 24 NOV 178

PREDICTED 25 NOV-27 NOV 158/145/139

90 DAY MEAN 24 NOV 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 23 NOV 020/039

ESTIMATED AFR/AP 24 NOV 030/075

PREDICTED AFR/AP 25 NOV-27 NOV 030/045-025/030-025

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