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HFUS 1 BOU 101300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 344A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 10 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 09/1200Z TO 10/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE DUE TO AN M5/3B, PARALLEL RIBBON FLARE FROM REGIONS 3492 (N19W23) AND 3496 (N08W22) AT 09/1918UT. MOST OF THE FLARE WAS FROM REGION 3496. STRONG RADIO WAS OBSERVED WITH THIS EVENT 610 FLUX UNITS AT 2695 MHZ, AN IMPORTANCE 3 SHORT WAVE FADE AND A MODERATE TYPE IV SWEEP. REGION 3487 (N05W53) PRODUCED THE ONLY OTHER LARGE EVENT THIS PERIOD A C9/SB AT 09/1844UT. REGIONS 3500 (N07W06) AND 3507 (S07E15) HAVE BOTH EXHIBITED GROWTH, THE REST OF THE ACTIVE REGIONS HAVE SLIGHTLY DECAYED OR ARE CURRENTLY STABLE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN AT MODERATE LEVELS DURING THE FORECAST PERIOD. REGION 3492, 3496 AND 3504 (S15E28) ARE COMPLEX MAGNETICALLY AND SHOULD CONTINUE TO PRODUCE M-CLASS ACTIVITY. REGIONS 3492 AND 3496 ARE CAPABLE OF ISOLATED X-CLASS ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT UNSETTLED TO ACTIVE LEVELS DURING THE PAST 24 HOURS. THE FIELD IS EXPECTED TO BE AT MINOR STORM LEVELS DURING THE FIRST PART OF THE FORECAST PERIOD AS THE EFFECTS OF THE 09/1918UT EVENT ARE REALIZED, THEN ACTIVE CONDITIONS FOR THE REMAINDER OF THE PERIOD. PROTONS WERE DETECTED AT 10/0245UT REACHING EVENT LEVEL AT 10/0545UT OF 10⁻⁶ PARTICLES/CM²/SEC/STER AT GREATER THAN 10 MEV THEN REACHING A MAXIMUM OF 65 PARTICLES AT 10/1045UT. THE PROTON EVENT IS EXPECTED TO CONTINUE FOR THE NEXT 18 TO 24 HOURS.

III. EVENT PROBABILITIES 11 DEC-13 DEC

CLASS M 95/95/95

CLASS X 15/15/15

PROTON 20/20/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 09 DEC 305

ESTIMATED 10 DEC 304

PREDICTED 11 DEC-13 DEC 300/295/290

90 DAY MEAN 09 DEC 219

V. GEOMAGNETIC A INDICES

OBSERVED AFR 08 DEC 015 AP 09 DEC 012

ESTIMATED AFR 09 DEC 013 AFR/AP 10 DEC 013/014

PREDICTED AFR/AP 11 DEC-13 DEC 035/035-020/022-018/020

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HFUS 3 BOU 102200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 344B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 10 DEC 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 10/1200Z TO 10/2100Z: SOLAR ACTIVITY DURING THIS PERIOD HAS BEEN CONFINED TO LOW LEVEL CLASS C XRAY BURSTS. BOTH THE COMPLEXITY AND GRADIENTS IN REGION 3492(N19W29) HAVE INCREASED DURING THE PAST 24 HOURS. THE KIT PEAK MAGNETOGRAM SHOWS MAGNETIC COMPLEXITY REMAINS IN REGIONS 3487(N05W59), 3496(N09W28), 3504(S15E21), AND 3505(S07E39). REGION 3509(N20W50) HAS BEEN ADDED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. REGION 3492 APPEARS CAPABLE OF A CLASS X FLARE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN SLIGHTLY UNSETLED AND IS EXPECTED TO REMAIN SO UNTIL THE ARRIVAL OF A MAGSTORM NEAR MID ZULU DAY ON 11 DECEMBER. THE GREATER THAN 10 MEV PROTON FLUX CROSSED 10⁻² P/CM²/SEC/STER AT 0545Z, REACHING A MAXIMUM FLUX OF 65 AT 1045Z. THE FLUX CURRENTLY IS DOWN TO 17.

III. EVENT PROBABILITIES 11 DEC-13 DEC

CLASS M 95/95/95

CLASS X 15/15/15

PROTON 20/20/20

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 10 DEC 287

PREDICTED 11 DEC-13 DEC 300/295/290

90 DAY MEAN 10 DEC 220

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 09 DEC 011/012

ESTIMATED AFR/AP 10 DEC 007/008

PREDICTED AFR/AP 11 DEC-13 DEC 035/022-020/030-018/020

SOLTERWARN

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