

HFUS 1 BOU 251300
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 329A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 25 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 24/1200Z TO 25/1200Z: SOLAR ACTIVITY HAS BEEN MODERATE. FOUR CLASS M FLARES OCCURRED IN REGION 3994 (S11W72). THE LARGEST WAS AN M2/1B WITH AN XRAY MAXIMUM AT 0417Z. IN ADDITION TO THE ACTIVITY IN 3994, REGIONS 4000 (S23E22) AND 4001 (N12W63) EACH PRODUCED A CLASS C XRAY FLARE. REGION 3994 HAS SHOWN SOME DECAY IN WHITE LIGHT IN ITS CENTRAL PORTION AND REGION 4001 HAS HAD A WEAK ARCHED FILAMENT SYSTEM DURING THIS PERIOD. AN ACTIVE SURGE REGION IS NOW IN PROGRESS AT SE 15, AND SOME PLAGE IS NOW VISIBLE IN THIS AREA. THIS IS BELIEVED TO BE THE RETURN OF OLD REGION 3985 WHICH WAS QUIET DURING ITS LAST CROSSING OF THE DISK. BOTH THE PROTON EVENT (GT 10 PARTICLES / CM² / SEC / SEC AT GT 10 MEV) AND THE POLAR CAP ABSORPTION ENDED AT 2300Z. THE PROTONS RECURRED BRIEFLY (0800-0905Z) DURING A PERIOD OF ENHANCED GEOMAGNETIC ACTIVITY (3HR AP WAS 107 AT 0900Z).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE THROUGH 26 NOV AND THEN RETURN TO LOW AS REGION 3994 ROTATES OFF THE DISK.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT MAJOR STORM LEVELS DURING THIS PERIOD. THE BEGINNING OF THIS ACTIVITY WAS IN RESPONSE TO A FLARE THAT OCCURRED ON 22 NOV BUT THE CURRENT ACTIVITY IS BELIEVED TO BE RELATED TO A CORONAL HOLE. THE EFFECTS OF THIS CORONAL HOLE ARE EXPECTED TO END ON THE 27 TH OF NOV. THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT MINOR STORM LEVELS ON THE 26TH AND DECREASE TO ACTIVE CONDITIONS ON THE 27TH AND 28TH.

III. EVENT PROBABILITIES 26 NOV-28 NOV

CLASS M 60/15/15

CLASS X 10/01/01

PROTON 15/10/01

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 24 NOV 178

ESTIMATED 25 NOV 160

PREDICTED 26 NOV-28 NOV 150/142/136

90 DAY MEAN 24 NOV 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR 23 NOV 020 AP 24 NOV 067

ESTIMATED AFR 24 NOV 035 AFR/AP 25 NOV 035/045

PREDICTED AFR/AP 26 NOV-28 NOV 030/030-025/025-015/020

SOLTERWARN

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HFUS 3 BOU 252200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 329B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 25 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 25/1200Z TO 25/2100Z: SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 9 HOURS. LIMITED OPTICAL OBSERVATIONS FROM THE OBSERVATORIES PROHIBITED REGION CORRELATION WITH THE NUMEROUS C-CLASS XRAY EVENTS, BUT MOST OF THESE SMALL EVENTS WERE PRODUCED FROM REGION 3994 (S11W83). THIS REGION HAS SHOWN SLOW DECAY DURING THE PERIOD, BUT RETAINS ITS MAGNETIC COMPLEXITY (BETA-GAMMA-DELTA) AS IT ROTATES OVER WEST LIMB. REGION 4000 (S22E08) IS THE ONLY OTHER DISK REGION DISPLAYING ANY ACTIVITY, WITH SLOW GROWTH AND AN ARCH FILAMENT SYSTEM VISIBLE. SURGING HAS BEEN OCCURRING FROM A SMALL REGION NOW ROTATING OVER THE SOUTHEAST LIMB AT SE15, HOWEVER, NO SPOTS HAVE BEEN OBSERVED IN ITS LEADING PLAGE WHICH IS NOW ON THE DISK.

IB. SOLAR ACTIVITY FORECAST: MODERATE ACTIVITY IS POSSIBLE FROM REGION 3994 AS IT ROTATES OVER WEST LIMB DURING THE NEXT 24 HOURS. FOLLOWING ITS ROTATION, ACTIVITY SHOULD DECREASE TO LOW WITH NO DISK REGIONS CAPABLE OF M-CLASS EVENTS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT NEAR MINOR STORM LEVELS DURING THE PAST NINE HOURS. ALL REPORTING MAGNETOMETER SITES HAVE EXHIBITED A GRADUAL SETTLING TREND DURING RECENT HOURS. ACTIVE TO OCASSIONAL MINOR STORM CONDITIONS ARE EXPECTED DURING THE NEXT 12 HOURS FOLLOWED BY A GENERAL DECREASE TO NEAR UNSFTLED LEVELS BY THE THIRD DAY OF THE PERIOD.

III. EVENT PROBABILITIES 26 NOV-28 NOV

CLASS M 60/15/15

CLASS X 10/01/01

PROTON 15/10/01

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 25 NOV 169

PREDICTED 26 NOV-28 NOV 152/145/140

90 DAY MEAN 25 NOV 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 24 NOV 043/067

ESTIMATED AFR/AP 25 NOV 038/056

PREDICTED AFR/AP 26 NOV-28 NOV 025/025-020/020-015/020

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