

HFXS 1 BOU 301300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 303A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 30 OCT 1982

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/1200Z TO 30/1200Z: SOLAR ACTIVITY CONTINUES LOW. REGION 3960 (N13W38) PRODUCED TWO LONG-LIVED 1B FLARES ON THE 29TH, A C5/1B AT 29/1409Z MAXIMUM, AND A C4/1B AT 29/1715Z MAXIMUM. THESE FLARES, WHICH WERE THE LARGEST OBSERVED SINCE 27 OCT, DISPLAYED AN XRAY SIGNATURE CHARACTERISTIC OF FILAMENT ACTIVATION. SINCE THESE FLARES THIS REGION HAS STABILIZED WITH ONLY MINOR FILAMENT ACTIVITY. IN WHITE LIGHT IT IS A SMALL, SLOWLY DECLINING D-TYPE SPOT GROUP. REGION 3955 (S11W72) CONTINUED TO PRODUCE SMALL SUBFLARES DURING ITS DECAY PHASE. REGION 3961 (S06W33), THE ONLY MAGNETICALLY COMPLEX GROUP ON THE DISK YESTERDAY, HAS UNDERGONE TRAILER SPOT FRAGMENTATION WITH THE RESULTING LOSS OF ITS DELTA CONFIGURATION. LITTLE FLARE ACTIVITY HAS BEEN REPORTED HERE. REGION 3966 (N07W07) REMAINED DORMANT UNTIL RECENT HOURS, WHEN EMERGING FLUX AND A SMALL ARCH FILAMENT SYSTEM HAS BEEN OBSERVED ALONG WITH SMALL SUBFLARES. NEW EMERGING REGION 3969 (S10E04) HAS BEEN NUMBERED TODAY. IT IS A RAPIDLY GROWING B-TYPE GROUP. NO ACTIVITY HAS BEEN OBSERVED AT THE EAST LIMB.

I B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE PREDOMINATELY LOW, WITH ONLY A SLIGHT CHANCE OF ISOLATED M-CLASS ACTIVITY FROM REGIONS 3960 AND 3961.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE TO MINOR STORM LEVELS DURING THE PAST 24 HOURS. OCCASIONAL MINOR STORM CONDITIONS ARE EXPECTED FOR THE REMAINDER OF TODAY, FOLLOWED BY ACTIVE LEVELS FOR THE NEXT 48 HOURS. CONDITIONS ON THE 1ST OF NOVEMBER SHOULD BE DISTURBED DUE TO YESTERDAY'S FILAMENT RELATED FLARE ACTIVITY. THE LAST DAY OF THE FORECAST PERIOD SHOULD SEE LEVELS RETURN TO NEAR UNSETTLED.

III. EVENT PROBABILITIES 31 OCT-02 NOV

CLASS M 40/30/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 29 OCT 177

ESTIMATED 30 OCT 169

PREDICTED 31 OCT-02 NOV 160/154/148

90 DAY MEAN 29 OCT 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR 28 OCT 010 AP 29 OCT 039

ESTIMATED AFR 29 OCT 033 AFR/AP 30 OCT 025/025

PREDICTED AFR/AP 31 OCT-02 NOV 020/020-025/025-015/020

SOLTERWARN

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HFXS BOU 301300

PREDM 04031 03001 02002

PREDX 00131 00101 00102

PREDP 00131 00101 00102

PCAF 00131

TENCM 16031 15401 14802

AFRED 02031 02501 01502

AFAPP 02031 02501 02002

KKK 43344 33333 45443

BT

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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 303B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 30 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z TO 30/2100Z: SOLAR ACTIVITY HAS BEEN LOW. GROWTH OF REGION 3966(N07W12) NOW MAKES THIS THE MOST SIGNIFICANT REGION ON THE SOLAR DISK. THE SMALL AND SLIGHTLY COMPLEX CLASS D SPOT GROUP HAS NUMEROUS SPOTS AND A FORM SUGGESTIVE OF FURTHER SIGNIFICANT GROWTH. THIS REGION HAS FORMED WITHIN THE REMNANT FIELDS OF THE VERY PERSISTENT ACTIVITY COMPLEX WHICH DOMINATED SOLAR ACTIVITY FOR MOST OF 1982. MINOR GROWTH HAS CONTINUED IN REGION 3963(N12W84). AN ACTIVE FILAMENT HAS AGAIN FORMED IN REGION 3960(N11W45) DIRECTLY OVER AN AREA OF STEEP MAGNETIC-FIELD GRADIENT. THE DELTA CONFIGURATION IN REGION 3961(S06W39) HAS BROKEN DOWN, BUT THE MAGNETIC CONFIGURATION IN ITS LOCATION REMAINS COMPLEX. THIS LARGE SUNSPOT GROUP IS SIMPLE ON A LARGER SCALE AND THE ASSOCIATED ACTIVITY HAS BEEN CORRESPONDINGLY LOW. REGION 3969(S09W01) IS VERY SMALL AND SHOWING NO SIGNIFICANT GROWTH. A WEAK SOURCE OF RADIO EMISSION HAS APPEARED AT EAST LIMB, PRESUMABLY FROM A MINOR ACTIVITY COMPLEX DUE AT NE LIMB.

IB. SOLAR ACTIVITY FORECAST: ACTIVITY THIS FORECAST PERIOD WILL DECREASE MARKEDLY UNLESS REGION 3966 CONTINUES SIGNIFICANT GROWTH. WITH CONTINUED GROWTH CLASS M EVENTS WOULD BE LIKELY ON THE SECOND AND THIRD DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: GEOMAGNETIC ACTIVITY CONTINUED ACTIVE WITH A TREND TO LOWER INTENSITY. ACTIVE TO MINOR STORM CONDITIONS ARE EXPECTED FOR THE NEXT 48 HOURS DUE TO FLARE AND CORONAL ACTIVITY TWO DAYS AGO. A PERIOD OF UNSETTLED ACTIVITY WILL END THIS FORECAST INTERVAL.

III. EVENT PROBABILITIES 31 OCT-02 NOV

CLASS M 40/30/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 OCT 169

PREDICTED 31 OCT-02 NOV 164/158/153

90 DAY MEAN 30 OCT 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 OCT 028/039

ESTIMATED AFR/AP 30 OCT 028/030

PREDICTED AFR/AP 31 OCT-02 NOV 020/020-025/025-015/020

SOLTERWARN

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