

HFUS 1 BOU 311300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 304A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 31 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z TO 31/1200Z: SOLAR ACTIVITY HAS CONTINUED LOW DURING THE PAST 24 HOURS. REGION 3963 (CURRENTLY N12W90) AND SPOTLESS REGION 3967 (N10W67) EACH PRODUCED SMALL C-CLASS FLARES (OBSERVED OPTICALLY AS 1N AND 1B RESPECTIVELY) ON THE 30TH, BUT RADIO RESPONSE WAS ONLY MINOR WITH THESE EVENTS. REGION 3966 (N07W19) DEVELOPED RAPIDLY YESTERDAY INTO THE MOST SIGNIFICANT REGION ON THE DISK WITH A BETA GAMMA MAGNETIC COMPLEXITY, BUT IN RECENT HOURS ITS GROWTH HAS SLOWED. IT HAS MANAGED TO PRODUCE ONLY MINOR SUBFLARES. REGION 3961 (S06W46) REMAINS THE LARGEST WHITE LIGHT SPOT GROUP ON THE DISK, BUT CONTINUES VERY DISAPPOINTING IN ITS FLARE PRODUCTION WITH ONLY INFREQUENT SUBFLARES OBSERVED. A NEW REGION HAS ROTATED OVER THE NORTHEAST LIMB (N21E84) WHICH HAS BEEN NUMBER 3970. THIS REGION POSSESSES DULL PLAGE AND A SMALL H-TYPE SPOT. THE REMAINING DISK REGIONS HAVE BEEN EITHER STABLE OR DECLINING.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN LOW. WITH THE SLOWING OF GROWTH IN REGION 3966, ITS M-CLASS POTENTIAL HAS ALSO DIMINISHED. ONLY AN ISOLATED MODERATE SIZED EVENT IS LIKELY FROM THIS REGION UNLESS SOME SIGNIFICANT REDEVELOPMENT OCCURS. AN M-CLASS FLARE IS STILL POSSIBLE FROM REGION 3961 PRIOR TO ITS LIMB TRANSIT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS ACTIVE THROUGH THE MAJORITY OF THE PERIOD, BUT AFTER 31/0900Z A SIGNIFICANT QUIETING OF THE FIELD WAS OBSERVED. THIS LEVEL SHOULD GIVE WAY TO ACTIVE CONDITIONS AGAIN ON THE 1ST OF NOVEMBER WITH SLOWLY SETTLING LEVELS ON THE 2ND. A CORONAL HOLE AND A SOLAR SECTOR BOUNDARY WILL BE IN A PRIME POSITION TO RAISE THE MAGNETIC FIELD LEVEL TO ACTIVE CONDITIONS AGAIN ON THE 3RD OF NOV.

III. EVENT PROBABILITIES 01 NOV-03 NOV

CLASS M 30/20/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 OCT 169

ESTIMATED 31 OCT 164

PREDICTED 01 NOV-03 NOV 158/152/145

90 DAY MEAN 30 OCT 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR 29 OCT 028 AP 30 OCT 028

ESTIMATED AFR 30 OCT 026 AFR/AP 31 OCT 016/018

PREDICTED AFR/AP 01 NOV-03 NOV 025/025-015/020-020/020

SOLTERWARN

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HXUS BOU 311300

PREDM 03001 02002 02003

PREDX 00101 00102 00103

PREDP 00101 00102 00103

PCAFT 00101

TENCM 15801 15202 14503

AFRED 02501 01502 02003

AFAPF 02501 02002 02003

KKK 33254 43334 44332

BT

HFUS 3 BOU 312200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 304B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 31 OCT 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 31/1200Z TO 31/2100Z: SOLAR ACTIVITY HAS BEEN LOW. THERE HAVE BEEN NO SOLAR EVENTS OF ANY MAGNITUDE FOR THIS PERIOD. ONLY MINOR GROWTH IS REPORTED IN REGION 3966(N07W25), WHICH IS A SLIGHTLY COMPLEX CLASS D SPOT GROUP. A REGION RETURNED TO NE LIMB WITH A SINGLE LEADER SUNSPOT AND HAS BEEN NUMBERED REGION 3970(N21E75). ALL OTHER REGIONS ARE SIMPLE AND DECLINING.

IB. SOLAR ACTIVITY FORECAST: NO INCREASE IN SOLAR ACTIVITY IS EXPECTED DURING THIS FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: A SMALL SUDDEN COMMENCEMENT OF GEOMAGNETIC STORM (21 GAMMAS) OCCURRED AT 1337Z. MINOR STORM CONDITIONS DEVELOPED BY 1800Z AND HAD ATTAINED AN INTENSITY OF K=6 BY 2100Z. THIS DISTURBANCE IS EXPECTED TO CONTINUE FOR ANOTHER 24 HOURS. UNSETTLED CONDITIONS ARE EXPECTED FOR ONLY ONE DAY BEFORE COMMENCEMENT OF ANOTHER ACTIVE PERIOD.

III. EVENT PROBABILITIES 01 NOV-03 NOV

CLASS M 30/20/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 31 OCT 168

PREDICTED 01 NOV-03 NOV 160/155/145

90 DAY MEAN 31 OCT 167

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 OCT 025/028

ESTIMATED AFR/AP 31 OCT 021/028

PREDICTED AFR/AP 01 NOV-03 NOV 030/040-015/020-020/020

SOLTERWARN

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