

HFUS 1 BOU 031300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 307A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 03 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 03/1200Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. THE LARGEST EVENT WAS A SLOW-RISE C6 X-RAY EVENT MAXING AT 0929Z. THE SOURCE OF THIS EVENT HAS NOT YET BEEN IDENTIFIED BUT IS PROBABLY REGION 3961 (S08W90). GROWTH AND ACTIVE SURGING HAVE BEEN OBSERVED IN 3961 AS IT CROSSES THE WEST LIMB. REGION 3966 (N05W61) HAS PRODUCED SEVERAL MODERATE C-CLASS FLARES BUT IT IS CLEARLY DECAYING IN WHITE LIGHT.

REGION 3969 (S12W46) IS GROWING AND CONTAINS AN INTENSE ARCH FILAMENT SYSTEM. THE COMPLEX OF REGIONS NEAR THE NORTHEAST LIMB HAVE BEEN QUIESCENT EXCEPT FOR AN ACTIVE DARK FILAMENT AND OCCASIONAL BRIGHT POINTS AND PLAGE FLUCTUATIONS IN REGION 3970 (N22E40). SURGING NEAR NE04 MAY INDICATE THAT ONE MORE GROUP MAY JOIN THIS CONGLOMERATION.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW. ONCE 3966 CLEARS THE WEST LIMB NO SIGNIFICANT ACTIVITY IS LIKELY UNLESS CONSIDERABLE DEVELOPMENT OCCURS IN REGIONS PRESENTLY NEAR THE NORTHEAST LIMB. NONE OF THE REGIONS DUE TO RETURN DURING THE NEXT THREE DAYS HAVE BEEN NOTEWORTHY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE TO MINOR STORM LEVELS FOR THE PAST 24 HOURS. ISEE-E SPACECRAFT DATA INDICATES THAT THE SOLAR WIND IMPACTING THE EARTH HAS BEEN FAIRLY STEADY OF ABOVE-AVERAGE VELOCITY (APPROXIMATELY 500 KM/S) AND NEAR-NORMAL DENSITY (5 CM⁻³). THE INTERPLANETARY MAGNETIC FIELD HAS BEEN MODERATELY SOUTHWARD AND FROM A POSITIVE-POLARITY SECTOR WHICH IS IN CONTRAST TO THE NEGATIVE POLARITY WIND ON 01 NOVEMBER. THE SOLAR WIND IS EXPECTED TO SWITCH BACK TO A NEGATIVE-POLARITY SIGNATURE WITHIN THE NEXT 12 HOURS IN ASSOCIATION WITH A HIGH-SPEED STREAM FROM A CORONAL HOLE THAT CROSSED CENTRAL MERIDIAN 31 OCTOBER. ACTIVE TO OCCASIONAL MINOR STORM GEOMAGNETIC CONDITIONS SHOULD THEN PREVAIL FOR THE FOLLOWING THREE DAYS. IN ADDITION, DISTURBED SOLAR WIND FROM AN ENERGETIC WEST-LIMB EVENT ON 01 NOVEMBER COULD ARRIVE DURING THIS FORECAST PERIOD.

III. EVENT PROBABILITIES 04 NOV-06 NOV

CLASS M 10/10/10

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 NOV 157

ESTIMATED 03 NOV 150

PREDICTED 04 NOV-06 NOV 140/130/130

90 DAY MEAN 02 NOV 167

V. GEOMAGNETIC A INDICES

OBSERVED AFR 01 NOV 028 AP 02 NOV 030

ESTIMATED AFR 02 NOV 028 AFR/AP 03 NOV 025/035

PREDICTED AFR/AP 04 NOV-06 NOV 025/025-025/015-025/015

SOLTERWARN

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HFUS 3 BOU 032200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 307B
JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 03 NOV 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200Z TO 03/2100Z: SOLAR ACTIVITY CONTINUED LOW DURING THIS PERIOD. REGION 3974 (N05E54) IS THE MOST MAGNETICALLY COMPLEX GROUP ON THE VISIBLE DISK AND IS A "BETA GAMMA", HOWEVER IT'S SIZE IS ONLY 20 MILLIONTHS. REGION 3966 (N05W65) CONTINUES TO DECAY AND IS NOW A SIMPLE "D" TYPE BETA GROUP. THE REST OF THE REGIONS HAVE SHOWN LITTLE CHANGE THIS PERIOD.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO CONTINUE LOW DURING THE FORECAST PERIOD. REGION 3974 MAY INCREASE IN SIZE ENOUGH NEAR THE END OF THE FORECAST PERIOD TO PRODUCE "M" CLASS EVENTS HOWEVER THIS APPEARS UNLIKELY AT THIS TIME.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS ACTIVE UNTIL 1500 WHEN THE FIELD BECAME UNSETLED THEN QUIET. THE EFFECTS OF THE SMALL CORONAL HOLE ARE NOT EXPECTED TO INFLUENCE THE FIELD UNTIL LATE ON 05 OR EARLY 06 NOV. THEREFORE THE FIELD IS EXPECTED TO BE UNSETLED UNTIL 05 NOV WHEN UNSETLED TO ACTIVE CONDITIONS ARE FORECAST. THE CORONAL HOLE AND A SMALL SSB SHOULD CAUSE ACTIVE CONDITIONS, WITH A FEW PERIODS AT MINOR STORM, ON 06 NOV.

III. EVENT PROBABILITIES 04 NOV-06 NOV

CLASS M 10/10/10

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 NOV 150

PREDICTED 04 NOV-06 NOV 140/130/130

90 DAY MEAN 03 NOV 166

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 02 NOV 025/030

ESTIMATED AFR/AP 03 NOV 018/022

PREDICTED AFR/AP 04 NOV-06 NOV 012/015-015/015-025/025

SOLTERWARN

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