

HFUS-1-BOU 171300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 260A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 17 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 16/1200Z TO 17/1200Z: SOLAR ACTIVITY HAS BEEN VERY LOW. THE LARGEST XRAY EVENT DURING THE PAST 24 HOURS WAS A CLASS C1 AT 162038Z (MAX) WITH NO OPTICAL CORRELATION. REGION 3909 (N18W26) HAS AN ARCH FILAMENT SYSTEM AND IS FLUCTUATING IN BRIGHTNESS. REGION 3906 (N02E10) ALSO HAS AN ARCH FILAMENT SYSTEM AND REGION 3905 (S16E10) IS FLUCTUATING IN BRIGHTNESS. THE OTHER DISK FEATURES ARE QUIET.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE LOW. HOWEVER, DESPITE THE CURRENT LULL IN ACTIVITY, THE REGIONS MENTIONED ABOVE, ALONG WITH REGION 3907 (S10E34), ARE CAPABLE OF AN ISOLATED M EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD WAS GENERALLY UNSETTLED DURING THE PAST 24 HOURS. AT 170900Z, THE FIELD WENT INTO A VERY PRONOUNCED EXCURSION AND HAS FLUCTUATED BROADLY SINCE THAT TIME. THIS IS INTERPRETED AS A SUBSTORM AND SHOULD BE A SHORT LIVED EXCURSION. GENERALLY ACTIVE CONDITIONS SHOULD DOMINATE THE FIELD FOR THE NEXT 24 TO 48 HOURS FOLLOWING THE END OF THIS SUBSTORM.

III. EVENT PROBABILITIES 18 SEP-20 SEP

CLASS M 50/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 16 SEP 146

ESTIMATED 17 SEP 149

PREDICTED 18 SEP-20 SEP 151/152/154

90 DAY MEAN 16 SEP 164

V. GEOMAGNETIC A INDICES

OBSERVED AFR 15 SEP 012 AP 16 SEP 012

ESTIMATED AFR 16 SEP 011 AFR/AP 17 SEP 018/020

PREDICTED AFR/AP 18 SEP-20 SEP 015/015-015/020-012/020

SOLTERWARN

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HFUS 3 BOU 172200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 260B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200Z 17 SEP 1982

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/1200Z TO 17/2100Z: SOLAR ACTIVITY REMAINS LOW. THE LARGEST EVENT DURING THE PERIOD WAS A C3/SB FROM REGION 3908 (N20E34) AT 1401Z MAXIMUM. MINOR FLARES HAVE ALSO BEEN OBSERVED FROM REGIONS 3905 (S16E06) AND 3910 (N14E48). REGIONS 3908 AND 3909 ARE LINKED BY A COMMON NEUTRAL LINE AND HAVE DISPLAYED SOME INTERACTION. BOTH HAVE HAD SOME SPOT GROWTH REPORTED ALONG WITH POINT BRIGHTENINGS AND PLAGUE FLUCTUATIONS. REGION 3907 (S11E29) HAS LOST ITS DELTA MAGNETIC CONFIGURATION, BUT IS DISPLAYING SPOT ROTATION AND FRAGMENTATION. THIS REGION HAS BEEN QUIET DURING THE PERIOD. REGION 3901 (S14W30) HAS DECAYED VERY RAPIDLY DURING THE PAST NINE HOURS AND NOW IS A SIMPLE A-TYPE SPOT GROUP. NO NEW REGIONS WERE SEEN TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN LOW, HOWEVER, INTERACTION BETWEEN REGIONS 3908 AND 3909 COULD PRODUCE AN ISOLATED M-CLASS EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD RETURNED TO UNSETTLED LEVELS FOLLOWING THIS MORNING'S (1200Z) K-INDEX OF FIVE OBSERVED AT BOULDER. DURING THIS SAME TIME PERIOD THE FREDERICKSBURG MAGNETOMETER RECORDED A THREE. ACTIVE CONDITIONS ARE FORECAST THROUGH THE NEXT 48 HOURS FOLLOWED BY UNSETTLED LEVELS ON THE LAST DAY.

III. EVENT PROBABILITIES 18 SEP-20 SEP

CLASS M 50/50/50

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 17 SEP 150

PREDICTED 18 SEP-20 SEP 151/152/154

90 DAY MEAN 17 SEP 164

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 16 SEP 012/012

ESTIMATED AFR/AP 17 SEP 012/015

PREDICTED AFR/AP 18 SEP-20 SEP 015/015-015/020-012/020

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