

SESC Solar Summary and Forecast - For Joe Hirman

Begin: 02/07/86 00:00:00

: 02/07/86 23:59:00

02/07 22:00

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HFUS3 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 038

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 07 FEB 1986

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 06/2100 TO 07/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE FOR THE PAST 24 HOURS. REGION 4711 (S08W29) IS STILL A DKI/BETA-GAMMA SPOT GROUP. ALTHOUGH REPORTS INDICATE SOME DECAY, THE REGION AGAIN PRODUCED SIGNIFICANT ACTIVITY FOR THE THIRD DAY IN A ROW. AN M5/2B FLARE BEGAN AT 0947 UT AND REACHED AN X-RAY MAXIMUM AT 1034UT THAT COULD BE ATTRIBUTED TO REGION 4711. THE FLARE HAD AN ASSOCIATED TENFLARE AND SOME DISCREET FREQUENCY RADIO BURSTS. REGION 4713 (S02E15) IS A DAO/BETA GROUP THAT SEEMS TO HAVE STABILIZED OVER THE LAST TWO DAYS. THE REGION DOES STILL CONTAIN THE POTENTIAL FOR SIGNIFICANT FLARE ACTIVITY. NO NEW REGIONS WERE NUMBERED TODAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO HIGH FOR THE NEXT 24 HOURS. ALL INDICES INDICATE THAT REGION 4711 IS STILL A MAJOR FLARE PRODUCER AND MORE SIGNIFICANT ACTIVITY IS EXPECTED FROM THAT REGION.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 06/2100Z TO 07/2100Z: GEOMAGNETIC FIELD WAS UNSETLED TO ACTIVE UNTIL 07/0600UT. TEN PERIODS OF STORM CONDITIONS WERE OBSERVED MOSTLY AT HIGH LATITUDES. AFTER 07/1200UT BOTH MID AND HIGH LATITUDES HAVE BEEN AT MINOR TO MAJOR STORM LEVELS. THE PROTON ENHANCEMENT THAT BEGAN ON 06/0918UT IS STILL IN PROGRESS AT THIS TIME AND MAINTAINS A LEVEL WELL ABOVE THE EVENT THRESHOLD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN AT STORM LEVEL FOR THE NEXT 48 HOURS DUE TO CONTINUING INFLUENCE FROM THE SIGNIFICANT FLARING ACTIVITY OF THE PAST FOUR DAYS. THE THIRD DAY OF THE FORECAST IS EXPECTED TO DROP BACK TO ACTIVE LEVELS AS THE PRIMARY ACTIVITY PRODUCING REGION (REGION 4711) BEGINS APPROACHING THE WEST LIMB. THE PROTON ENHANCEMENT IS EXPECTED TO CONTINUE ON FOR AT LEAST THE NEXT 24 HOURS WITH LITTLE SIGNIFICANT CHANGE. POLAR CAP ABSORPTION IS ALSO EXPECTED TO COMMENCE PRIOR TO THE END OF THE FIRST DAY OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 08 FEB-10 FEB

CLASS M 99/99/99

CLASS X 90/50/50

PROTON 50/50/50

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 FEB 099

PREDICTED 08 FEB-10 FEB 098/096/092

90 DAY MEAN 07 FEB 076

GEOMAGNETIC A INDICES

SERVED AFR/AP 06 FEB 010/012

ESTIMATED AFR/AP 07 FEB 038/080

PREDICTED AFR/AP 08 FEB-10 FEB 030/030-050/050-025/025

SOLTERWARN