

SESC Solar Summary and Forecast - For Joe Hirman

Begin: 02/06/86 00:00:00

: 02/06/86 23:59:00

02/06 22:00

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HFUS3 BOU 062200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 037

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 06 FEB 1986

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 05/2100 TO 06/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE TO HIGH FOR THE PAST 24 HOURS. REGION 4711 (S08W16) IS A DK1/BETA-GAMMA THAT HAS SHOWN SOME DECLINE IN PENUMBRA OVER THE PAST DAY BUT STILL REMAINS A VERY IMPRESSIVE REGION. THIS REGION'S LATEST HIGH LEVEL ACTIVITY WAS AN X1/3B FLARE THAT BEGAN AT 0618 UT AND REACHED A X-RAY MAXIMUM AT 0625 UT. ASSOCIATED WITH THE FLARE WAS TYPE II AND IV RADIO SWEEPS AS WELL AS A TENFLARE (1300 FLUX UNITS). IN ADDITION POLAR CAP ABSORPTION BEGAN AT APPROXIMATELY 06/1200 UT. REGION 4713 (S02E29) IS A DAO/BETA SPOT GROUP THAT HAS PRODUCED ONLY MINOR FLARES THIS PERIOD. NO NEW REGIONS WERE NUMBERED TODAY.

IB. SOLAR ACTIVITY FORECAST: THE SOLAR ACTIVITY IS EXPECTED TO REMAIN GENERALLY MODERATE TO HIGH FOR THE NEXT THREE DAYS. REGION 4711 REMAINS VERY CAPABLE OF MAJOR FLARE ACTIVITY. REGION 4713 HAS THE CAPABILITY OF SIGNIFICANT ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 05/2100Z TO 06/2100Z:

GEOMAGNETIC FIELD HAS BEEN GENERALLY QUIET TO UNSETTLED WITH SOME ACTIVE CONDITIONS EXISTING THE EARLY PART OF THE PERIOD. HIGH LATITUDE STATIONS DID EXPERIENCE BRIEF PERIODS OF MINOR STORM LEVELS. PROTON ENHANCEMENT EXCEEDING THE GREATER THAN 10 MEV LEVEL BEGAN AT 06/0918 UT AND IS IN PROGRESS AT THIS WRITING.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT MINOR TO MAJOR STORM LEVELS FOR THE NEXT THREE DAYS AS A RESULT OF THE MAJOR FLARING THAT HAS OCCURRED DURING THE PREVIOUS 72 HOUR PERIOD. IN ADDITION POLAR CAP ABSORPTION IS EXPECTED TO CONTINUE THROUGH 07/0600 UT.

III. EVENT PROBABILITIES 07 FEB-09 FEB

CLASS M 90/90/90

CLASS X 50/50/50

PROTON 50/50/50

PCAF RED

IV. OTTAWA 10.7 CM FLUX

OBSERVED 06 FEB 102

PREDICTED 07 FEB-09 FEB 101/100/099

90 DAY MEAN 06 FEB 076

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 05 FEB 007/010

ESTIMATED AFR/AP 06 FEB 012/015

PREDICTED AFR/AP 07 FEB-09 FEB 035/035-030/030-050/050

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