

SESC Solar Summary and Forecast - For Joe Hirman

Begin: 10/14/87 00:00:00

End : 10/14/87 23:59:00

10/14 22:00

2200

HFUS3 BOU 142200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 287

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 14 OCT 1987

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 13/2100Z TO 14/2100Z: SOLAR ACTIVITY HAS BEEN VERY LOW. REGION 4866 (N22E14) IS THE MOST IMPRESSIVE REGION ON THE DISK. IT HAS ONLY PRODUCED SMALL SUBFLARES SO FAR BUT CONTINUES TO DEVELOP WITH STRONG MAGNETIC FIELDS, NUMEROUS SPOTS AND A FAIRLY COMPLEX STRUCTURE. REGION 4870 (S24W03) ALSO SHOWED CONTINUED GROWTH, DEVELOPING PENUMBRA LATE IN THE PERIOD, AND IT PRODUCED SOME SUBFLARES. THE REMAINING SOLAR ACTIVE REGIONS WERE QUIET AND STABLE. A RADIO NOISE STORM WAS OBSERVED AT 245, 410 AND 610 MHZ DURING THE PERIOD.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW WITH A CHANCE FOR MODERATE ACTIVITY OUT OF REGION 4866.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 13/2100Z TO 14/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT UNSETTLED TO ACTIVE LEVELS AT MID-LATITUDES AND AT MINOR TO MAJOR STORM LEVELS AT HIGH LATITUDES. A POSSIBLE SOURCE FOR THE DISTURBANCE IS THE 17 DEGREE FILAMENT THAT DISAPPEARED FROM THE SOLAR DISK AT APPROXIMATELY 1200Z ON 09 OCTOBER AT S25W64.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE GENERALLY ACTIVE FOR MOST OF 15 OCTOBER AS THE CURRENT DISTURBANCE PERSISTS. CONDITIONS FOR 16-17 OCTOBER ARE EXPECTED TO DIMINISH TO UNSETTLED LEVELS WITH OCCASIONAL ACTIVE PERIODS AT HIGH LATITUDES.

III. EVENT PROBABILITIES 15 OCT-17 OCT

CLASS M 20/20/20

CLASS X 02/02/02

PROTON 02/02/02

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 OCT 116

PREDICTED 15 OCT-17 OCT 114/114/114

90 DAY MEAN 14 OCT 091

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 13 OCT 020/030

ESTIMATED AFR/AP 14 OCT 020/042

PREDICTED AFR/AP 15 OCT-17 OCT 020/025-010/020-010/015

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