

SESC Solar Summary and Forecast - For Joe Hirman

Begin: 09/21/87 00:00:00

End : 09/21/87 23:59:00

09/21 22:00

2227

HFUS3 BOU 212200 RTD

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 264

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 21 SEP 1987

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 20/2100Z TO 21/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 4853 (S32W73) PRODUCED A M1.3/1B FLARE AT 0201Z. OBSERVERS REPORTED A VISIBLE SPRAY OF .16 RADIUS DURING THE FLARE. CORRELATED RADIO BURSTS AND SWEEPS WERE ALSO RECORDED INCLUDING A WEAK TYPE II SWEEP. THE FLARE WAS SURPRISING SINCE THE REGION IS NOT IMPRESSIVE IN WHITE LIGHT (Bxo TYPE GROUP). THE REGION CONTINUED TO PRODUCE SMALL FLARES FOR THE REMAINDER OF THE DAY. THE OTHER ACTIVE REGIONS WERE QUIET AND STABLE. NUMEROUS FILAMENTS (ABOUT SIX) DISAPPEARED FROM THE SOLAR DISK TODAY, POSSIBLY INDICATING SOME LARGE-SCALE MAGNETIC RESTRUCTURING ON THE SUN. NO NEW REGIONS WERE NUMBERED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. THERE IS A SLIGHT CHANCE OF ANOTHER M-FLARE FROM 4853 AS IT ROTATES OFF THE SOLAR DISK. REGION 4857 SHOWS POTENTIAL FOR SMALL FLARES.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 20/2100Z TO 21/2100Z: THE GEOMAGNETIC FIELD HAS BEEN QUIET TO UNSETLED WITH BRIEF PERIODS OF ACTIVE CONDITIONS AT HIGH LATITUDES. THE PREVIOUSLY FORECAST GEOMAGNETIC STORM HAS NOT YET MATERIALIZED.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT GENERALLY ACTIVE LEVELS FOR 22-23 SEPTEMBER WITH BRIEF PERIODS OF MINOR STORM CONDITIONS AT HIGH LATITUDES ON 22 SEPTEMBER. ACTIVITY FOR THE 22ND IS EXPECTED FROM 17 SEPTEMBER'S CORONAL MASS EJECTION EVENT AND AN INCREASE IS EXPECTED LATE ON THE 23RD IN RESPONSE TO TODAY'S M-FLARE ACTIVITY. A MINOR GEOMAGNETIC STORM IS EXPECTED LATE ON 24 SEPTEMBER IN RESPONSE TO THE DISAPPEARING FILAMENT ACTIVITY MENTIONED IN PART IA.

III. EVENT PROBABILITIES 22 SEP-24 SEP

CLASS M 10/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 21 SEP 082

PREDICTED 22 SEP-24 SEP 082/080/080

90 DAY MEAN 21 SEP 087

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 20 SEP 009/013

ESTIMATED AFR/AP 21 SEP 010/020

PREDICTED AFR/AP 22 SEP-24 SEP 025/030-020/025-035/040