

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 (BXD 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 UNSETTLED 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