

SESC Solar Summary and Forecast - For Joe Hirman

Begin: 05/19/87 00:00:00

End : 05/19/87 23:59:00

05/19 22:00

2215

HFUS3 BOU 192200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 139

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 19 MAY 1987

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/2100Z

TO 19/2100Z: SOLAR ACTIVITY HAS BEEN VERY LOW. REGION 4811

(N30E22) HAS SHOWN SOME GROWTH IN AREA AND NUMBER OF SPOTS.

THIS REGION PRODUCED THREE C-FLARES DURING THE PERIOD: THE

LARGEST HAD AN X-RAY MAXIMUM C9.6 AT 1810UT, RADIO BURSTS

ACROSS THE SPECTRUM, AND A TYPE II RADHFUS3 BOU 192200

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LARGEST HAD AN X-RAY MAXIMUM C9.6 AT 1810UT, RADIO BURSTS

ACROSS THE SPECTRUM, AND A TYPE II RADIO SWEEP WITH A SHOCK

WAVE SPEED OF APPROXIMATELY 1000 KM/S. THE OTHER C-FLARES

FROM 4811 WERE A C1.3 AT 2326UT AND A C2.6 AT 1259UT. COIN-

CIDENTALLY, REGION 4808 (S19W78) PRODUCED A C1.0 FLARE AT

07UT AND A C3.2 AT 1227UT, BOTH WITHIN 30 MINUTES OF THE

FLARES IN 4811. REGION 4810 (S24E16) CONTINUED QUIET AND

DECLINED SLIGHTLY. THE RADIO SUN CONTINUES TO BE NOISY,

PRODUCING NUMEROUS BURSTS AND TYPE III/V SWEEPS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE

VERY LOW TO LOW. C-FLARE ACTIVITY IS VERY LIKELY TO CONTINUE

AND 4811 CONTINUES TO BE CAPABLE OF PRODUCING M-FLARE ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 18/2100Z TO 19/2100Z:

THE GEOMAGNETIC FIELD HAS BEEN GENERALLY QUIET WITH BRIEF

UNSETTLED PERIODS AT HIGH LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS

EXPECTED TO BE QUIET TO UNSETTLED FOR 20 MAY, BECOMING

UNSETTLED TO SLIGHTLY ACTIVE FOR 21 MAY, AND IS EXPECTED TO

RETURN TO QUIET TO UNSETTLED CONDITIONS FOR 22 MAY.

THE INCREASE OF ACTIVITY ON 21 MAY IS FORECAST BECAUSE OF

THE OBSERVATION OF THE SHOCK WAVE FROM THE C9 CLASS FLARE

MENTIONED IN PART IA.

III. EVENT PROBABILITIES 20 MAY-22 MAY

CLASS M 15/15/15

CLASS X 02/02/02

PROTON 02/02/02

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 MAY 098

PREDICTED 20 MAY-22 MAY 100/100/098

DAY MEAN 19 MAY 081

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 MAY 002/006  
ESTIMATED AFR/AP 19 MAY 004/008  
PREDICTED AFR/AP 20 MAY-22 MAY 007/011-012/016-005/010

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<003>  
05/19 22:00

2217

HFUS3 BOU 192200 RTD  
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 139

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 2200Z 19 MAY 1987

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/2100Z TO 19/2100Z: SOLAR ACTIVITY HAS BEEN VERY LOW. REGION 4811 (N30E22) HAS SHOWN SOME GROWTH IN AREA AND NUMBER OF SPOTS. THIS REGION PRODUCED THREE C-FLARES DURING THE PERIOD: THE LARGEST HAD AN X-RAY MAXIMUM C9.6 AT 1810UT, RADIO BURSTS ACROSS THE SPECTRUM, AND A TYPE II RADIO SWEEP WITH A SHOCK WAVE SPEED OF APPROXIMATELY 1000 KM/S. THE OTHER C-FLARES FROM 4811 WERE A C1.3 AT 2326UT AND A C2.6 AT 1259UT. COINCIDENTALLY, REGION 4808 (S19W78) PRODUCED A C1.0 FLARE AT 0007UT AND A C3.2 AT 1227UT, BOTH WITHIN 30 MINUTES OF THE FLARES IN 4811. REGION 4810 (S24E16) CONTINUED QUIET AND DECLINED SLIGHTLY. THE RADIO SUN CONTINUES TO BE NOISY, PRODUCING NUMEROUS BURSTS AND TYPE III/V SWEEPS.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW TO LOW. C-FLARE ACTIVITY IS VERY LIKELY TO CONTINUE AND 4811 CONTINUES TO BE CAPABLE OF PRODUCING M-FLARE ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 18/2100Z TO 19/2100Z: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY QUIET WITH BRIEF UNSETTLED PERIODS AT HIGH LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE QUIET TO UNSETTLED FOR 20 MAY, BECOMING UNSETTLED TO SLIGHTLY ACTIVE FOR 21 MAY, AND IS EXPECTED TO RETURN TO QUIET TO UNSETTLED CONDITIONS FOR 22 MAY. THE INCREASE OF ACTIVITY ON 21 MAY IS FORECAST BECAUSE OF THE OBSERVATION OF THE SHOCK WAVE FROM THE C9 CLASS FLARE MENTIONED IN PART IA.

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