

SESC Solar Summary and Forecast - For Joe Hirman

Begin: 10/31/87 00:00:00

End : 10/31/87 23:59:00

10/31 22:00

2201

HFUS3 BOU 312200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 304

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 31 OCT 1987

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/2100Z TO 31/2100Z: SOLAR ACTIVITY WAS VERY LOW. A LONG DURATION X-RAY EVENT AT THE START OF THE PERIOD WAS ASSOCIATED WITH REGION 4875 (N32W15) AND POSSIBLY REGION 4878 (S22S02). THE BRIGHTENINGS AND MANY SUBFLARE POINTS IN REGION 4875 COINCIDED WITH THE TIME OF MAXIMUM ESTIMATED FLUX OF C3. BUT THE VERY ACTIVE DARK FILAMENT IN REGION 4878 HAD BEEN OBSERVED TO ACCOMPANY SIMILAR BUT MUCH SMALLER X-RAY EVENTS IMMEDIATELY PRIOR. THE IMPLICATION OF A CORONAL MASS EJECTION IS SUPPORTED BY MINOR RADIO SWEEPS AND RADIO BURSTS FROM 245 TO 1415MHZ. AN EARLIER SUBFLARE FROM REGION 4878 RESULTED IN A SEVEN DEGREE LONG DISAPPEARING FILAMENT. NO NEW REGION WAS ASSIGNED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. REGION 4878 AND 4875 PROVIDE A SLIGHT CHANCE OF MODERATE ACTIVITY. DUE TO THE VERY SHORT LIFE OF REGIONS IN THIS EARLY SEASON OF THE CYCLE, ANY ACTIVITY SHOULD EXPEND THE LIMITED ENERGY AVAILABLE AND A SUBSEQUENT DROP TO VERY SLIGHT STATUS IS EXPECTED THE LAST HALF OF THE PERIOD.

RETURNING REGION 4869 (S26, L-240) IS EXPECTED THE SECOND DAY. IT WAS RESTRUCTURING THE LAST DAY OBSERVED ON THE DISK.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 30/2100Z TO 31/2100Z: THE GEOMAGNETIC FIELD WAS ACTIVE TO UNSETTLED. AN ISOLATED MINOR STORM CONDITION OCCURRED AT HIGH LATITUDES MIDWAY THROUGH THE PERIOD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE GENERALLY ACTIVE THE FIRST TWO DAYS (01-02 NOV) IN RESPONSE TO THE SEVERAL SMALL SUBFLARES AND DISAPPEARING FILAMENTS OF 25-28 NOV. THE LONG DURATION X-RAY EVENT THAT PEAKED OUT WITH AN ESTIMATED C3 FLUX AT 30/2215Z IS EXPECTED TO START A DISTURBANCE ON THE THIRD DAY (3 NOV). OCCASIONAL MAJOR STORM CONDITIONS ARE EXPECTED AT HIGH LATITUDES.

III. EVENT PROBABILITIES 01 NOV-03 NOV

CLASS M 15/10/10

CLASS X 02/01/01

PROTON 02/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 31 OCT 099

PREDICTED 01 NOV-03 NOV 097/096/095

90 DAY MEAN 31 OCT 092

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 OCT 014/019

ESTIMATED AFR/AP 31 OCT 008/020

PREDICTED AFR/AP 01 OCT-03 NOV 014/022-016/025-018/030

NNNN

<003>
10/31 22:10

202

HQ 63 BOU 312210 COR
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 304

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

|||||CORRECTED TEXT|||||

ISSUED 2200Z 31 OCT 1987

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/2100Z TO 31/2100Z: SOLAR ACTIVITY WAS VERY LOW. A LONG DURATION X-RAY EVENT AT THE START OF THE PERIOD WAS ASSOCIATED WITH REGION 4875 (N32W15) AND POSSIBLY REGION 4878 (S22S02). THE BRIGHTENINGS AND MANY SUBFLARE POINTS IN REGION 4875 COINCIDED WITH THE TIME OF MAXIMUM ESTIMATED FLUX OF C3, BUT THE VERY ACTIVE DARK FILAMENT IN REGION 4878 HAD BEEN OBSERVED TO ACCOMPANY SIMILAR BUT MUCH SMALLER X-RAY EVENTS IMMEDIATELY PRIOR. THE IMPLICATION OF A CORONAL MASS EJECTION IS SUPPORTED BY MINOR RADIO SWEEPS AND RADIO BURSTS FROM 245 TO 1415MHZ. AN EARLIER SUBFLARE FROM REGION 4878 RESULTED IN A SEVEN DEGREE LONG DISAPPEARING FILAMENT. NO NEW REGION WAS ASSIGNED.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. REGIONS 4878 AND 4875 PROVIDE A SLIGHT CHANCE OF MODERATE ACTIVITY. DUE TO THE VERY SHORT LIFE OF REGIONS IN THIS EARLY SEASON OF THE CYCLE, ANY ACTIVITY SHOULD EXPEND THE LIMITED ENERGY AVAILABLE AND A SUBSEQUENT DROP TO VERY SLIGHT STATUS IS EXPECTED THE LAST HALF OF THE PERIOD.

RETURNING REGION 4869 (S26, L-240) IS EXPECTED THE SECOND DAY IT WAS RESTRUCTURING THE LAST DAY OBSERVED ON THE DISK.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 30/2100Z TO 31/2100Z: THE GEOMAGNETIC FIELD WAS ACTIVE TO UNSETLED. AN ISOLATED MINOR STORM CONDITION OCCURRED AT HIGH LATITUDES MIDWAY THROUGH THE PERIOD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE GENERALLY ACTIVE THE FIRST TWO DAYS (01-02 NOV) IN RESPONSE TO THE SEVERAL SMALL SUBFLARES AND DISAPPEARING FILAMENTS OF 25-28 OCT. THE LONG DURATION X-RAY EVENT THAT PEAKED OUT WITH AN ESTIMATED C3 FLUX AT 30/2215Z IS EXPECTED TO START A DISTURBANCE ON THE THIRD DAY (3 NOV). OCCASIONAL MAJOR STORM CONDITIONS ARE EXPECTED AT HIGH LATITUDES.

III. EVENT PROBABILITIES 01 NOV-03 NOV

CLASS M 15/10/10

CLASS X 02/01/01

PROTON 02/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 31 OCT 099

PREDICTED 01 NOV-03 NOV 097/096/095

90 DAY MEAN 31 OCT 092

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 OCT 014/019

ESTIMATED AFR/AP 31 OCT 008/020

PREDICTED AFR/AP 01 OCT-03 NOV 014/022-016/025-018/030

NNNN

<003>

10/31 22:10

2255

HQ 63 BOU 312210 COR 02
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 304

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

:::::::CORRECTED TEXT TWO:::::::

ISSUED 2200Z 31 OCT 1987

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/2100Z TO 31/2100Z: SOLAR ACTIVITY WAS VERY LOW. A LONG DURATION X-RAY EVENT AT THE START OF THE PERIOD WAS ASSOCIATED WITH REGION 4875 (N32W15) AND POSSIBLY REGION 4878 (S21W02). THE BRIGHTENINGS AND MANY SUBFLARE POINTS IN REGION 4875 COINCIDED WITH THE TIME OF MAXIMUM ESTIMATED FLUX OF C3, BUT THE VERY ACTIVE DARK FILAMENT IN REGION 4878 HAD BEEN OBSERVED TO ACCOMPANY SIMILAR BUT MUCH SMALLER X-RAY EVENTS IMMEDIATELY PRIOR. THE IMPLICATION OF A CORONAL MASS EJECTION IS SUPPORTED BY MINOR RADIO SWEEPS AND RADIO BURSTS FROM 245 TO 1415MHZ. AN EARLIER SUBFLARE FROM REGION 4878 RESULTED IN A SEVEN DEGREE LONG DISAPPEARING FILAMENT. NO NEW REGION WAS ASSIGNED.

I B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. REGIONS 4878 AND 4875 PROVIDE A SLIGHT CHANCE OF MODERATE ACTIVITY. DUE TO THE VERY SHORT LIFE OF REGIONS IN THIS EARLY SEASON OF THE CYCLE, ANY ACTIVITY SHOULD EXPEND THE LIMITED ENERGY AVAILABLE AND A SUBSEQUENT DROP TO VERY SLIGHT STATUS IS EXPECTED THE LAST HALF OF THE PERIOD.

RETURNING REGION 4869 (S26, L-240) IS EXPECTED THE SECOND DAY. IT WAS RESTRUCTURING THE LAST DAY OBSERVED ON THE DISK.

I C. GEOPHYSICAL ACTIVITY SUMMARY FROM 30/2100Z TO 31/2100Z: THE GEOMAGNETIC FIELD WAS ACTIVE TO UNSETTLED. AN ISOLATED MINOR STORM CONDITION OCCURRED AT HIGH LATITUDES MIDWAY THROUGH THE PERIOD.

I I B. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE GENERALLY ACTIVE THE FIRST TWO DAYS (01-02 NOV) IN RESPONSE TO THE SEVERAL SMALL SUBFLARES AND DISAPPEARING FILAMENTS OF 25-28 OCT. THE LONG DURATION X-RAY EVENT THAT PEAKED OUT WITH AN ESTIMATED C3 FLUX AT 30/2215Z IS EXPECTED TO START A DISTURBANCE ON THE THIRD DAY (3 NOV). OCCASIONAL MAJOR STORM CONDITIONS ARE EXPECTED AT HIGH LATITUDES.

III. EVENT PROBABILITIES 01 NOV-03 NOV

CLASS M 15/10/10

CLASS X 02/01/01

PROTON 02/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 31 OCT 099

PREDICTED 01 NOV-03 NOV 097/096/095

90 DAY MEAN 31 OCT 092

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 30 OCT 014/019

ESTIMATED AFR/AP 31 OCT 008/020

PREDICTED AFR/AP 01 NOV-03 NOV 014/022-016/025-018/030

MAIN