

SESC Solar Summary and Forecast - For Joe Hirman

Begin: 10/16/87 00:00:00

End : 10/16/87 23:59:00

10/16 22:00

2201

HFUS3 BOU 162200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 289

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 16 OCT 1987

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 15/2100Z TO 16/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 4866 (N22W15) PRODUCED A M1.7 FLARE AT 1002Z WITH CORRELATED TYPE II AND TYPE IV SWEEPS AND RADIO BURSTS ACROSS THE SPECTRUM. THE REGION APPEARS TO BE DECAYING SOMEWHAT AND ITS MAGNETIC STRUCTURE HAS SIMPLIFIED. THE REGION PRODUCED A FEW OTHER SUBFLARES DURING THE PERIOD. REGION 4870 (S24W30) ALSO PRODUCED SOME SMALL FLARES, THE LARGEST BEING A C2.1 AT 0919Z PRECEDING THE M FLARE MENTIONED ABOVE. REGION 4869 (S26W60) PRODUCED A SUBFLARE AND APPEARS TO BE DECLINING AT THIS TIME. A SMALL PLAGE REGION ROTATED INTO VIEW AT ABOUT S31 AND PRODUCED A SUBFLARE BUT NO SPOTS HAVE BEEN OBSERVED IN THE AREA. THE REMAINING ACTIVE REGIONS WERE STABLE AND QUIET.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW WITH A CONTINUED CHANCE FOR ISOLATED M-FLARES OUT OF REGION 4866 AS IT DECAYS. REGIONS 4869 AND 4870 ARE EXPECTED TO CONTINUE PRODUCING SMALL FLARES.

I. GEOPHYSICAL ACTIVITY SUMMARY FROM 15/2100Z TO 16/2100Z: THE GEOMAGNETIC FIELD WAS GENERALLY QUIET TO UNSETTLED AT MID-LATITUDES AND GENERALLY UNSETTLED TO ACTIVE AT HIGH LATITUDES. SOME HIGH LATITUDE STATIONS REPORTED A BRIEF PERIOD OF MINOR STORM CONDITIONS AT 0600-0900Z CORRESPONDING TO A BRIEF ACTIVE PERIOD AT MID-LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE UNSETTLED TO ACTIVE FOR 17 OCTOBER DUE TO CORONAL HOLE EFFECTS. GENERALLY UNSETTLED LEVELS WITH OCCASIONAL PERIODS OF ACTIVE CONDITIONS AT HIGH LATITUDES ARE EXPECTED FOR 18-19 OCTOBER.

III. EVENT PROBABILITIES 17 OCT-19 OCT

CLASS M 20/15/15

CLASS X 02/02/02

PROTON 02/02/02

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 16 OCT 112

PREDICTED 17 OCT-19 OCT 112/108/108

90 DAY MEAN 16 OCT 092

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 15 OCT 023/033

ESTIMATED AFR/AP 16 OCT 012/018

PREDICTED AFR/AP 17 OCT-19 OCT 016/018-012/015-012/015

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