

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 248

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 04 SEP 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/2100 TO 04/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4567 (S06W69) PRODUCED SEVERAL SMALL B-LEVEL X-RAY EVENTS WITH ASSOCIATED SUB-FLARES. IT CONTINUED ITS DECAY IN WHITE-LIGHT SIZE AND SPOT NUMBER. IT WAS A DKI CLASSIFICATION AND REMAINED A BETA-TYPE. NEW REGION 4574 (S12W31) WAS A GROWING BETA-TYPE OF 3 SPOTS AND CAO CLASSIFICATION IN WHITE-LIGHT.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. REGIONS 4567 AND 4574 COMBINE TO PROVIDE ONLY A 5 PER CENT CHANCE OF M-LEVEL X-RAY EVENTS. RETURNING REGIONS 4561 (N06, CAR-344) AND 4562 (N12, CAR-336) PRODUCED NO EVENTS LAST ROTATION TO SUPPORT FORECASTING SIGNIFICANT ACTIVITY THIS TIME AROUND.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 03/2100Z TO 04/2100Z: GEOMAGNETIC ACTIVITY WAS AT ACTIVE TO MAJOR STORM LEVELS. A SUDDEN STORM COMMENCEMENT AT 04/0746Z RAISED THE THEN ACTIVE LEVEL QUICKLY TO MINOR STORM LEVELS AT ALL LATITUDES AND UP TO MAJOR LEVELS AT HIGH LATITUDES BY 04/0900Z. MID-LATITUDE MAJOR STORM LEVELS WERE REPORTED AT 04/1500Z. MID-LATITUDE LEVELS DECREASED TO MINOR LEVELS AT 04/1930Z AND FINALLY BACK DOWN TO ACTIVE LEVELS BY END-OF-PERIOD. MAJOR STORM LEVELS CONTINUED AT HIGH LATITUDES. THIS DISTURBANCE WAS ATTRIBUTED TO DISAPPEARING FILAMENTS FROM 30 AUG THRU 1 SEP.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE AT MAJOR STORM TO ACTIVE LEVELS. THE CURRENT STORM LEVEL AT HIGH LATITUDES IS EXPECTED TO CONTINUE THROUGH THE FIRST DAY (5 SEP) WITH SLOW DECREASE TO MINOR LEVELS THE SECOND (6 SEP). MINOR LEVELS ARE EXPECTED AT MID-LATITUDES DURING NIGHT-TIME PERIODS OF THE FIRST AND POSSIBLY SECOND DAYS (5-6 SEP). A DECREASE TO ACTIVE LEVELS IS EXPECTED FOR THE THIRD DAY (7 SEP). THIS DISTURBANCE IS THE CONTINUATION OF THE CONSEQUENT STORM CAUSED BY THE DISAPPEARING FILAMENTS FROM 30 AUG THROUGH 1 SEP AND MORE SMALL DISAPPEARING FILAMENTS FROM 2 THROUGH 4 SEP.

III. EVENT PROBABILITIES 05 SEP-07 SEP

CLASS M 05/05/05

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 04 SEP 090

PREDICTED 05 SEP-07 SEP 089/088/087

90 DAY MEAN 04 SEP 090

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 03 SEP 012/018

ESTIMATED AFR/AP 04 SEP 042/055

PREDICTED AFR/AP 05 SEP-07 SEP 035/035-030/025-020/025

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