

FUS 3 BOU 142200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 104

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 14 APR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 13/2100 TO 14/2100Z: SOLAR ACTIVITY HAS REMAINED LOW; HOWEVER, A SIGNIFICANT INCREASE HAS OCCURRED IN THE NUMBER OF XRAY BURSTS (C-CLASS), SUBFLARES, AND MINOR DISCRETE FREQUENCY RADIO BURSTS OBSERVED DURING THE 24 HOUR PERIOD. THE LARGEST EVENT WAS A LONG LASTING C3 BEGINNING AT 0815Z WITH A MAXIMUM AT 0913Z. THIS EVENT WHICH HAD THE SIGNATURE OF A LIMB EVENT COULD BE CORRELATED TO EITHER AN IMPRESSIVE LIMB SPRAY (SE05) WHICH EXTENDED OFF THE LIMB TO .3 RADII, OR A SYMPATHETIC 1N FLARE FROM REGION 4142 (S08E20). REGION 4142 CONTINUES TO GROW SLOWLY AND NOW IS THE MOST IMPRESSIVE OF THE DISK GROUPS. THE RAPID GROWTH BEHIND 4142 OBSERVED YESTERDAY HAS BECOME A NEW REGION AND HAS BEEN NUMBERED 4145 (S08E27). NEW REGION 4146 (N07E78) WAS NUMBERED TODAY AS IT CROSSED EAST LIMB. IT IS A BRIGHT COMPACT PLAGE WITH SIMPLE SPOT STRUCTURE. THE REMAINING SPOTTED REGIONS HAVE DISPLAYED LITTLE CHANGE. AT THIS TIME THERE IS NO EVIDENCE OF SPOTS AT THE LOCATION OF THIS MORNING'S SPRAY.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE LOW; HOWEVER, INTERACTION BETWEEN REGIONS 4142 AND 4145 COULD RESULT IN A MODERATE SIZED EVENT. THE ACTIVITY OBSERVED ON THE SOUTHEAST LIMB COULD INDICATE A SIGNIFICANT REGION IS DUE TO RETURN.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 13/2100Z TO 14/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE LEVELS FOR MID-LATITUDE SITES WITH MINOR TO OCCASIONAL MAJOR STORM LEVELS RECORDED AT HIGH-LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE FIELD IS EXPECTED TO REMAIN AT ACTIVE TO OCCASIONAL MINOR STORM LEVELS FOR THE NEXT 48 HOURS DUE TO THE INFLUENCE OF A NORTHERN NEGATIVE POLARITY CORONAL HOLE. ACTIVITY ON THE LAST DAY OF THE PERIOD SHOULD DECREASE TO LOW ACTIVE LEVELS.

III. EVENT PROBABILITIES 15 APR-17 APR

CLASS M 05/10/10

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 APR 111

PREDICTED 15 APR-17 APR 115/118/120

90 DAY MEAN 14 APR 121

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 13 APR 024/032

ESTIMATED AFR/AP 14 APR 025/035

PREDICTED AFR/AP 15 APR-17 APR 025/030-020/025-015/020

SOLTERWARN

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