

FUS 3 BOU 152200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 105

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.  
ISSUED 2200Z 15 APR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/2100 TO 15/2100Z: SOLAR ACTIVITY CONTINUES LOW. THE LARGEST EVENT DURING THE PAST 24 HOURS WAS AN UNCORRELATED C5 AT 0655Z. THIS EVENT COULD HAVE BEEN PRODUCED BY A REGION BEYOND THE LIMB SINCE THERE WAS NO DISK ACTIVITY OBSERVED AT THIS TIME. EVIDENCE OF AN ACTIVE REGION BEHIND THE SOUTHEAST LIMB IS FURTHER INDICATED BY A MODERATE TYPE II SWEEP REPORTED FROM THAT AREA AT 0209Z. THIS EVENT LASTED FOR 38 MINUTES. OF THE SPOTTED DISK REGIONS, 4142 (S08E05) AND 4146 (N05E66) HAVE BEEN THE MOST ACTIVE. REGION 4142 CONTINUES TO DEVELOP SLOWLY AND NOW DISPLAYS A TENDENCY TOWARDS A BETA-GAMMA MAGNETIC CONFIGURATION. REGION 4146 IS THE LARGEST OF THE DISK REGIONS (SPOT AREA), BUT HAS YET TO DISPLAY GROWTH OR DECAY TRENDS. TWO NEW REGIONS WERE NUMBERED TODAY; REGION 4147 (N13E58), A SIMPLE A-TYPE GROUP, AND REGION 4148 (S28W14), A SMALL B-TYPE GROUP. DESPITE THE RECENT ACTIVITY FROM THE SOUTHEAST LIMB, AT THIS TIME NO SPOTS OR FLARE HAVE COME INTO VIEW.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE LOW. INTERACTION BETWEEN REGIONS 4142 AND 4145 (S08E13) COULD PRODUCE A SMALL M-CLASS XRAY EVENT, BUT THIS WOULD BE AN ISOLATED CASE. THE SOUTHEAST LIMB CONTAINS AN UNKNOWN POTENTIAL FOR M-CLASS EVENTS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 14/2100Z TO 15/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT MINOR STORM LEVELS FOR MID-LATITUDE SITES WITH INTERMITTENT MAJOR STORM CONDITIONS OBSERVED AT HIGH-LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE FIELD IS EXPECTED TO TREND TOWARDS ACTIVE CONDITIONS THROUGH THE NEXT 36 HOURS. OCCASIONAL MINOR STORM LEVELS DURING NIGHT-TIME SECTORS ARE POSSIBLE DURING THIS TIME. UNSETTLED LEVELS ARE FORECAST FOR THE LAST DAY OF THE PERIOD.

III. EVENT PROBABILITIES 16 APR-18 APR

CLASS M 10/15/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 APR 103

PREDICTED 16 APR-18 APR 108/113/120

90 DAY MEAN 15 APR 121

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 14 APR 031/043

ESTIMATED AFR/AP 15 APR 033/055

PREDICTED AFR/AP 16 APR-18 APR 025/035-015/020-012/015

SOLTERWARN

BT