

HFUS 3 BOU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 090

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 30 MAR 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/2100 TO 30/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE THIS PERIOD. REGION 4458 (N19E47) PRODUCED TWO M CLASS X-RAY FLARES, A M1/1B FLARE AT 0453 UT AND A M1/1B FLARE AT 0853 UT. ONLY MINOR RADIO BURSTS WERE ASSOCIATED WITH THE FIRST FLARE. THE SECOND FLARE WAS ACCOMPANIED BY RADIO BURSTS THAT INCLUDED A 245 MHZ BURST OF 510 FLUX UNITS. THIS REGION NOW HAS A D TYPE SPOT CLASSIFICATION AND A RELATIVELY SMALL AREA. IT'S MAGNETIC CONFIGURATION IS THAT OF A BETA GROUP, BUT IS SOMEWHAT TWISTED IN ORIENTATION. REGION 4455 (S13E31) IS BY FAR THE LARGEST AND MOST IMPRESSIVE SPOT GROUP ON THE DISK, WITH A F TYPE SPOT GROUP CLASSIFICATION AND A GAMMA MAGNETIC CONFIGURATION. ACTIVITY IN THIS REGION HAS BEEN LIMITED TO C CLASS X-RAY FLARES, A 1B OPTICAL FLARE (WHICH OCCURRED AT 0303 UT) AND A FEW OTHER OPTICAL SUBFLARES. THE REGION APPEARS TO HAVE GROWN SLIGHTLY IN WHITE LIGHT BUT REMAINS, FOR THE MOST PART, FAIRLY QUIET. REGION 4451 (S11W99) LEFT THE VISIBLE DISK WITH A FLOURISH WHEN IT PRODUCED AN ERUPTIVE PROMINENCE ON LIMB AT APPROXIMATELY 1710 UT. TWO NEW REGIONS WERE NUMBERED THIS PERIOD, 4459 (N08W42) AND 4460 (S09E72). THESE REGIONS HAVE A AND D SPOT GROUP CLASSIFICATIONS, RESPECTIVELY. THE REST OF THE DISK APPEARS STABLE AT THIS TIME.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN MODERATE THROUGHOUT THE FORECAST PERIOD.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 29/2100Z TO 30/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT STORM LEVELS, AT ALL LATITUDES, THIS PERIOD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD SHOULD BE QUIET TO UNSETTLED AT MIDLATITUDES AND UNSETTLED TO ACTIVE AT HIGH LATITUDES, THE FIRST TWO DAYS OF THE FORECAST PERIOD. ACTIVE CONDITIONS SHOULD PREVAIL, AT ALL LATITUDES, THE FINAL DAY OF THE FORECAST PERIOD. THE RETURN TO ACTIVE CONDITIONS WILL BE DUE TO THE INFLUENCE OF THE NEGATIVE POLARITY CORONAL HOLE THAT WAS AT CENTRAL MERIDIAN YESTERDAY.

III. EVENT PROBABILITIES 31 MAR-02 APR

CLASS M 80/80/80

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 MAR 144

PREDICTED 31 MAR-02 APR 147/148/149

90 DAY MEAN 30 MAR 126

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 MAR 042/045

ESTIMATED AFR/AP 30 MAR 023/038

PREDICTED AFR/AP 31 MAR-02 APR 010/020-005/015-024/025

SOLTERWARN

BT