

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 081

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 22 MAR 1989

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/2100Z TO 22/2100Z: SOLAR ACTIVITY WAS MODERATE. REGION 5409 (N18W20) PRODUCED TODAY'S ONLY M-CLASS FLARE ACTIVITY: AN M1/SN AT 1115Z AND AN M1/1N AT 22/1958Z. THE GROUP CONTINUED TO GROW FOR MOST OF THE DAY WITH STRONG, COMPLICATED MAGNETIC FIELDS IN A DELTA CONFIGURATION. REGION 5417 (S26E51) CONTINUED TO GROW AS A MATURE REGION (AREA 620 MILLIONTHS) BUT PRODUCED ONLY SUBFLARE FLUCTUATIONS. THE REMAINDER OF THE SOLAR DISK AND LIMBS WERE ESSENTIALLY QUIET.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. REGION 5409 IS EXPECTED TO CONTINUE TO PRODUCE M-CLASS FLARES AND POSES A SLIGHT THREAT FOR MAJOR FLARE ACTIVITY. REGION 5417 MAY ALSO CONTRIBUTE AN ISOLATED M-FLARE DURING THE NEXT THREE DAYS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 21/2100Z TO 22/2100Z: THE GEOMAGNETIC FIELD WAS UNSETTLED DURING THE EARLY PART OF THE PERIOD BUT HAS BEEN SOMEWHAT DISTURBED SINCE 0600Z. MID-LATITUDES HAVE BEEN AT MOSTLY ACTIVE LEVELS AND HIGH LATITUDES WERE AT MINOR STORM LEVELS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO PERSIST AT PREDOMINANTLY ACTIVE LEVELS TOMORROW. CONDITIONS ARE EXPECTED TO DIMINISH TO UNSETTLED LEVELS WITH OCCASIONAL ACTIVE PERIODS ON THE SECOND AND THIRD DAYS AS THE CURRENT DISTURBANCE SUBSIDES.

III. EVENT PROBABILITIES 23 MAR-25 MAR

CLASS M 90/90/90

CLASS X 10/10/10

PROTON 10/10/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 MAR 220

PREDICTED 23 MAR-25 MAR 220/220/225

90 DAY MEAN 22 MAR 227

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 MAR 020/021

ESTIMATED AFR/AP 22 MAR 020/030

PREDICTED AFR/AP 23 MAR-25 MAR 015/022-012/020-010/018