

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 087

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.
ISSUED 2200Z 28 MAR 1989

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 27/2100Z
TO 28/2100Z: SOLAR ACTIVITY WAS MODERATE. REGION 5409 (NW17)
PRODUCED TWO M-CLASS FLARES FROM BEYOND THE WEST LIMB - AN
M4 AT 28/1037Z AND AN M1 AT 28/1949Z. REGION 5417 (S26W27)
PRODUCED SEVERAL C-CLASS FLARES, OF WHICH THE LARGEST WAS A
C9/SF AT 28/0806Z. THIS FLARE BEGAN SHORTLY AFTER A C2/SF LONG
DURATION EVENT (WITH TYPE II SWEEP) OCCURRED IN NEIGHBORING
REGION 5421 (S26E06). NEW REGION 5427 (N21E64) ROTATED AROUND
THE EAST LIMB AS A SMALL BIPOLAR SUNSPOT GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE
LOW TO MODERATE. AN ISOLATED M-CLASS FLARE IS POSSIBLE FROM
REGION 5417.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 27/2100Z TO 28/2100Z:
THE GEOMAGNETIC FIELD WAS AT ACTIVE TO STORM LEVELS. MAJOR
STORM THRESHOLDS WERE CROSSED AT BOULDER AT 28/1200Z.
THE MIDDLE LATITUDE FIELD RETURNED TO MINOR STORM TO ACTIVE
CONDITIONS BY 28/1500Z. HIGH LATITUDES EXPERIENCED MOSTLY
ACTIVE TO MAJOR STORM CONDITIONS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS
EXPECTED TO BE MOSTLY ACTIVE TO UNSETTLED FOR THE NEXT
THREE DAYS. MINOR STORM CONDITIONS ARE POSSIBLE AT HIGH
LATITUDES ON THE SECOND DAY.

III. EVENT PROBABILITIES 29 MAR-31 MAR

CLASS M 40/30/20

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 28 MAR 158

PREDICTED 29 MAR-31 MAR 150/145/150

90 DAY MEAN 28 MAR 223

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 27 MAR 037/030

ESTIMATED AFR/AP 28 MAR 028/035

PREDICTED AFR/AP 29 MAR-31 MAR 018/028-015/032-010/025