

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 086

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 27 MAR 1989

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 26/2100Z TO 27/2100Z: SOLAR ACTIVITY WAS MODERATE. REGION 5417 (S26W13) PRODUCED AN M3/1F FLARE AT 27/0317Z. THIS WAS THE ONLY M-FLARE OF THE REPORTING PERIOD. REGION 5409 (N17W85) HAS ONLY PRODUCED C-CLASS SUBFLARES DURING THE PAST 24 HOURS. THIS REGION CONTINUES A SLOW DECAY AS IT NEARS THE WEST LIMB. NEW REGION 5426 (N15E46) IS EMERGING AS A SMALL BIPOLAR SUNSPOT GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. ISOLATED M-CLASS FLARES ARE POSSIBLE FROM REGIONS 5409 AND 5417. MAJOR FLARES ARE NOT EXPECTED.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 26/2100Z TO 27/2100Z: THE GEOMAGNETIC FIELD WAS MOSTLY UNSETTLED TO ACTIVE UNTIL 27/1342Z WHEN A SUDDEN STORM COMMENCEMENT (SSC) WAS OBSERVED (33 NANOTESLA IN BOULDER). THE FIELD WAS AT ACTIVE TO SEVERE STORM LEVELS THEREAFTER. THIS ACTIVITY COULD BE IN RESPONSE TO FLARE ACTIVITY IN REGION 5409.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE MOSTLY ACTIVE DURING THE NEXT 24 HOURS AS THE CURRENT DISTURBANCE SUBSIDES. UNSETTLED TO ACTIVE CONDITIONS ARE EXPECTED THE REMAINING TWO DAYS.

III. EVENT PROBABILITIES 28 MAR-30 MAR

CLASS M 25/25/25

CLASS X 05/01/01

PROTON 05/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 27 MAR 164

PREDICTED 28 MAR-30 MAR 160/150/140

90 DAY MEAN 27 MAR 224

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 26 MAR 012/017

ESTIMATED AFR/AP 27 MAR 042/022

PREDICTED AFR/AP 28 MAR-30 MAR 020/020-015/018-015/018