

HFUS 3 BOU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 030

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 30 JAN 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/2100 TO 30/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE DURING THE PAST 24 HOURS. REGION 4399 (N12W20) FINALLY PRODUCED AN M2/1B FLARE AT 0441Z. ONLY MINOR RADIO BURSTS ACCCOMPANIED THE EVENT, AND NO ASSOCIATED RADIO SWEEPS WERE REPORTED. REGION 4399 CONTINUES TO GROW IN TOTAL SPOT AREA AND HAS PRODUCED SEVERAL SUBFLARES IN RECENT HOURS. REGION 4398 (N14W44) ONLY PRODUCED A FEW C-CLASS SUBFLARES DURING THIS REPORTING PERIOD IN SPITE OF ITS SIZE AND COMPLEXITY. OBSERVATORY REPORTS INDICATE THAT THIS REGION APPARENTLY HAS ACHIEVED ITS MAXIMUM GROWTH AND MAY BE ENTERING A DECAY PHASE. THE COMBINED SPOT AREA OF 4398 AND 4399 NOW EXCEEDS 3800 MILLIONTHS OF THE SOLAR DISK AND THEY CAN EASILY BE SEEN WITH THE PROTECTED NAKED EYE. OTHER NUMBERED REGIONS ARE SIMPLE GROUPS WHICH REMAINED MOSTLY STABLE. NEW REGION 4407 (S15W53) EMERGED AS A SMALL A-SPOT. SURGING ON THE SOUTH EAST LIMB (SE14) WAS NOTED IN PROGRESS NEAR 1500Z.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. REGIONS 4398 AND 4399 REMAIN CAPABLE OF SUSTAINED M-CLASS FLARES AND POSSIBLE MAJOR, PROTON-PRODUCING FLARE ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 29/2100Z TO 30/2100Z: THE GEOMAGNETIC FIELD HAS BEEN GENERALLY ACTIVE FOR THE PAST 24 HOURS WITH ISOLATED PERIODS AT MINOR STORM LEVELS AT BOTH MID AND HIGH LATITUDES. THESE OVERALL CONDITIONS HAVE PERSISTED SINCE 28 JANUARY.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO CONTINUE AT ACTIVE LEVELS THROUGHOUT THE FORECAST PERIOD, WITH A GOOD POSSIBILITY OF MINOR TO MAJOR STORM CONDITIONS TOMORROW. IF NO MAJOR FLARES OCCUR, THE GENERAL LEVEL OF ACTIVITY SHOULD BEGIN TO DECLINE ON 02 FEBRUARY.

III. EVENT PROBABILITIES 31 JAN-02 FEB

CLASS M 90/80/80

CLASS X 15/10/10

PROTON --10/05/05--

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 JAN 167

PREDICTED 31 JAN-02 FEB 165/155/140

90 DAY MEAN 30 JAN 100

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 JAN 020/020

ESTIMATED AFR/AP 30 JAN 024/025

PREDICTED AFR/AP 31 JAN-02 FEB 025/025-020/020-015/020

SOLTERWARN

BT