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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 203A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 22 JULY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

21/1200Z TO 22/1200Z:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THIS PERIOD. SIX SMALL M-CLASS EVENTS HAVE BEEN RECORDED. REGIONS PRODUCING M-CLASS ACTIVITY HAVE BEEN 3221 (S07E22) AND 3234 (S11E68). ONLY MINOR RADIO HAS BEEN REPORTED WITH THE EVENTS. THREE OF THE M-CLASS EVENTS HAVE HAD NO OPTICAL CORRELATION. REGION 3221 CONTINUES AS A LARGE COMPLEX D-TYPE GROUP. ALTHOUGH THE GROUP HAS BEEN STABLE THERE HAS BEEN REPORTS OF A FEW MINOR STRUCTURAL CHANGE. REGION 3224 (N17W08) IS A D-TYPE GROUP WITH A WEAK DELTA AND HAS EXHIBITED MINOR GROWTH. REGION 3234 CONTINUES TO ROTATE INTO VIEW AND HAS BEEN REPORTED AS AN E OR F TYPE GROUP. HOWEVER LIMB PROXIMITY, ALONG WITH POOR VIEWING AT SEVERAL OBSERVATORIES, HAS PREVENTED DETAILED ANALYSIS.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE DURING THE FORECAST PERIOD. REGION 3221 IS EXPECTED TO PRODUCE M-CLASS EVENTS WITH AN ISOLATED X-CLASS EVENT POSSIBLE IF RAPID CHANGE OCCURS. REGION 3224 SHOULD PRODUCE ONE OR TWO M-EVENTS EACH 24 HOURS. REGION 3234, A PROVEN M-PRODUCER, APPEARS TO HAVE THE POTENTIAL FOR X-CLASS ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETLED DURING THIS PERIOD. THE FIELD IS EXPECTED TO BE ACTIVE DURING THE FIRST 48 HOURS THEN UNSETLED FOR THE REMAINDER OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 23-25 JULY

CLASS M 95/95/95

CLASS X 30/30/30

PROTON 10/10/15

IV. OTTAWA 10.7 FLUX

OBSERVED 21 JULY 219

ESTIMATED 22 JULY 215

PREDICTED 23-25 JULY 210/200/200

90 DAY MEAN 21 JULY 177

V. GEOMAGNETIC A-F INDICES

OBSERVED AFR 20 JULY 17 AP 21 JULY 10

ESTIMATED AFR 21 JULY 10 AFR/AP 22 JULY 18/20

PREDICTED AFR/AP 23-25 JULY 15/18 15/15 12/13

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HELIUS 3 POU 222200  
FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO  
SDF NUMBER 203B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 0200Z 22 JULY 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 22/1200Z  
TO 22/2100Z: SOLAR ACTIVITY HAS BEEN LOW SINCE 22/1200Z. THE  
LARGEST FLARE THIS PERIOD WAS A C8/1B AT 22/1837Z FROM REGION  
3224 (N17W13). THIS REGION HAS BEEN RESPONSIBLE FOR MOST OF THE  
RECENT ACTIVITY. REGION 3221 (S08E15), 3224, AND 3234 (S12E66)  
ALL HAVE A DELTA CONFIGURATION. REGION 3234 HAS EMERGED FROM  
THE EAST LIMB AS AN ENORMOUS SPOT GROUP WHICH MAY BE ONE GROUP  
CLOSE BEHIND ANOTHER. REGION 3235, NUMBERED YESTERDAY, WAS  
ACTUALLY REGION 3226 INADVERTENTLY RENUMBERED. THREE NEW  
REGIONS WERE NUMBERED TODAY, 3235 (S20E31), 3236 (S21E69), AND  
3237 (S02E62).

II. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE  
MODERATE DUE TO THE HISTORY AND COMPLEXITY IN REGIONS 3221,  
3224, AND 3234. AN ISOLATED X-CLASS X-RAY EVENT MAY OCCUR IN  
ANY OF THESE REGIONS.

III. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD  
HAS BEEN UNSETTLED FOR THE PAST 24 HOURS. ACTIVE CONDITIONS  
ARE EXPECTED FOR THE NEXT 48 HOURS, FOLLOWED BY UNSETTLED  
CONDITIONS.

IV. EVENT PROBABILITIES 23 JULY - 25 JULY

CLASS M 95/95/95

CLASS X 30/30/30

PROTON 10/10/15

PCAF YELLOW

V. OTTAWA 10.7 CM FLUX

OBSERVED 22 JULY 229

PREDICTED 23-25 JULY 232/235/235

90-DAY MEAN 22 JULY 177

VI. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 JULY 10/10

ESTIMATED AFR/AP 22 JULY 16/20

PREDICTED AFR/AP 23-25 JULY 15/18 - 15/15 - 12/13

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