

FUS 3 BOU 032200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 154

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 03 JUN 1983.

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/2100 TO 03/2100Z: SOLAR ACTIVITY APPROACHED THE MODERATE LEVEL WITH THE OCCURRENCE OF TWO C8 XRAY EVENTS FROM REGION 4201 (S10E15). THE FIRST AT 1146Z MAXIMUM WAS ASSOCIATED WITH A 1B FLARE AND WAS ACCCOMPANIED BY MINOR DISCRETE FREQUENCY RADIO BURSTS THROUGH THE SPECTRUM. THE SECOND, AT 1429Z MAXIMUM, WAS ASSOCIATED WITH SEVERAL SECONDARY MAXIMUMS BOTH OPTICALLY AND IN XRAY. REGION 4201 HAS PRODUCED FREQUENT EVENT LEVEL FLARES SINCE THIS SECOND EVENT. THE REGION, A COMPLEX BETA-GAMMA DELTA SPOT GROUP WITH SEVERAL OPPOSITE POLARITY SPOTS CROWDED TOGETHER IN ITS INTERNAL STRUCTURE, HAS DISPLAYED SLOW GROWTH DURING THE PERIOD. THE MAGNETIC GRADIENTS IN BOTH THE NORTHERN AND SOUTHERN CENTRAL PORTIONS OF THIS GROUP HAVE BEEN INCREASING AND HAVE BEEN THE SOURCE OF TODAY'S ACTIVITY. IN CONTRAST TO THIS REGION, THE REMAINING SPOTTED DISK REGIONS (FOUR) HAVE BEEN UNIMPRESSIVE. NO NEW GROUPS WERE NUMBERED TODAY.

I B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. THE FREQUENT FLARE PRODUCTION CHARACTERISTICS OF REGION 4201 IS EXPECTED TO RESULT IN AT LEAST ONE M-CLASS XRAY EVENT EACH DAY. SINCE THIS REGION IS EXPENDING ITS ENERGY WITH FREQUENT SMALLER FLARES, AN X-CLASS EVENT IS MUCH LESS LIKELY.

II A. GEOPHYSICAL ACTIVITY SUMMARY FROM 02/2100Z TO 03/2100Z: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED DURING THE PAST 24 HOURS.

II B. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN AT UNSETTLED LEVELS THROUGH THE NEXT THREE DAYS WITH ISOLATED PERIODS AT ACTIVE LEVELS NEAR THE END OF THE THIRD DAY.

III. EVENT PROBABILITIES 04 JUN-06 JUN

CLASS M 75/75/75

CLASS X 10/10/10

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 JUN 135

PREDICTED 04 JUN-06 JUN 135/136/137

90 DAY MEAN 03 JUN 124

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 02 JUN 009/010

ESTIMATED AFR/AP 03 JUN 010/015

PREDICTED AFR/AP 04 JUN-06 JUN 010/015-010/015-008/015

SOLTERWARN

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