

HFUS 1 BOU 021230

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 214 A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1300Z 02 AUGUST 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

01/1200Z TO 02/1200Z:

SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. REGIONS 3234 (S 11W 73) AND 3247 (N 17W 01) HAVE BEEN RESPONSIBLE FOR ALL OF THE FLARES OBSERVED SINCE 01/1200UT. REGION 3234 STILL HAS A DELTA MAGNETIC CONFIGURATION AND REGION 3247 HAS INCREASED SPOT AREA AND MAGNETIC COMPLEXITY.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BECOME MODERATE FOR THE NEXT TWO DAYS, BECOMING LOW TO MODERATE ON 5 AUG DUE TO THE LOSS OF REGION 3234 OVER THE WEST LIMB.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN SLIGHTLY ACTIVE TO UNSETTLED FOR THE PAST 24 HOURS. UNSETTLED CONDITIONS ARE EXPECTED TO PERSIST FOR THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 03 - 05 AUG

CLASS M 80/75/50

CLASS X 25/20/10

PROTON 20/10/05

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 01 AUG 176

ESTIMATED 02 AUG 165

PREDICTED 03-05 AUG 157/150/147

90 DAY MEAN 01 AUG 181

V. GEOMAGNETIC A INDICES

OBSERVED AFR 31 JUL 14 AP 01 AUG 22

ESTIMATED AFR 01 AUG 20 AFR/AP 02 AUG 10/12

PREDICTED AFR/AP 03-05 AUG 10/15 09/12 08/10

SOLTERWARN

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HFUS 3 BOU 022200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 214B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 02 AUGUST 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 02/1200Z TO 02/2100Z: SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST NINE HOURS. REGION 3247 (N16W06), A RAPIDLY DEVELOPING COMPACT GROUP WITH STRONG ARCH FILAMENTS, WAS RESPONSIBLE FOR MOST OF THE SUBFLARE ACTIVITY. THE LARGEST EVENT WAS A C2/SN FROM 3247 AT 1527Z MAXIMUM. NEW REGION 3255 (S08W28) HAS EMERGED ON THE DISK WITH STRONG GROWTH REPORTED, WHILE NEW REGION 3256 (N10E86) IS DISPLAYING SOME SURGING AS IT ROTATES OVER EAST LIMB. REGION 3234 (S12W77) REMAINS IMPRESSIVE IN WHITE LIGHT BUT HAS BEEN QUIET DURING THE PERIOD.

I B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN GENERALLY LOW DURING THE FORECAST PERIOD; HOWEVER, REGION 3234 RETAINS ITS POTENTIAL FOR A LARGE FLARE EVEN AS IT ROTATES OVER WEST LIMB. REGION 3247 IS LIKELY TO PRODUCE AN ISOLATED M-CLASS EVENT IF GROWTH CONTINUES. WITH THE RETURN OF OLD SESC REGION 3203 (S07, CAR 108) AND EXPECTED NEW REGION DEVELOPMENT BETWEEN CARRINGTON LONGITUDES 100-60 DEGREES, THE SOLAR 10.7 CM RADIO FLUX AND GENERAL LEVEL OF ACTIVITY IS EXPECTED TO TURN-AROUND AND BEGIN A SLOW RISE.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD BECAME BRIEFLY ACTIVE BETWEEN 15-1800Z WHEN A K-INDEX OF FOUR WAS OBSERVED AT BOULDER. UNSETTLED CONDITIONS HAVE BEEN OBSERVED SINCE THIS PERIOD. UNSETTLED LEVELS ARE EXPECTED TO CONTINUE THROUGH THE FORECAST PERIOD.

III. EVENT PROBABILITIES 03 AUGUST - 05 AUGUST

CLASS M 50/40/60

CLASS X 10/10/10

PROTON 10/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 02 AUGUST 174

PREDICTED 03-05 AUGUST 169/167/174

90-DAY MEAN 02 AUGUST 180

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 01 AUGUST 18/22

ESTIMATED AFR/AP 02 AUGUST 12/16

PREDICTED AFR/AP 03-05 AUGUST 10/15 - 09/12 - 08/10

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