

HFUS 1 BOU 031230

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 215 A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 03 AUG 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

02/1200Z TO 03/1200Z:

SOLAR ACTIVITY HAS BEEN MODERATE DUE TO THREE M1 FLARES TODAY. THE FIRST WAS AT 0432 UT, THE SECOND AT 1008 UT. REGIONS 3234 (S12W85) AND 3247 (N16W14) ARE THE MOST PROBABLE SOURCES OF THESE FLARES, HOWEVER, THERE WERE NO OPTICAL REPORTS. THE THIRD OCCURRED AT 1130 UT IN REGION 3234 WITH SURGE BEYOND .2 RADII. ONLY THE TRAILER OF REGION 3234 IS NOW VISIBLE AS IT ROTATES OVER THE WEST LIMB. SLOW BUT SIGNIFICANT GROWTH HAS CONTINUED IN REGION 3247 AND, WITH THE PASSAGE OF REGION 3234, WILL BECOME THE MOST ACTIVE REGION ON THE DISK. REGIONS 3248 (N23W46) AND 3255 (S08W36) HAVE BOTH GROWN RAPIDLY INTO D-TYPE SPOT GROUPS AND, IN ADDITION TO REGION 3247, POSSES ARCH FILAMENT SYSTEMS. BOTH OF THESE REGIONS ARE EXPECTED TO BECOME INCREASINGLY ERUPTIVE.

I B. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO REMAIN MODERATE UNTIL REGION 3234 HAS PASSED FULLY OVER THE WEST LIMB. HOWEVER, CONTINUED GROWTH IN REGION 3247 MAY SUSTAIN MODERATE ACTIVITY FOR THE NEXT THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS GENERALLY UNSETTLED UNTIL 03 AUG AT 0645 UT WHEN A SUDDEN COMMENCEMENT OF 96 GAMMAS MARKED THE START OF HIGHLY ACTIVE CONDITIONS. ACTIVE CONDITIONS ARE EXPECTED TO PERSIST THROUGH 3 AUG, BECOMING UNSETTLED FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES: 04 - 06 AUG

CLASS M 60/50/50

CLASS X 10/10/10

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 02 AUG 174

ESTIMATED 03 AUG 169

PREDICTED 04-06 AUG 160/165/170

90 DAY MEAN 02 AUG 180

V. GEOMAGNETIC A INDICES

OBSERVED AFR 01 AUG 18 AP 02 AUG 14

ESTIMATED AFR 02 AUG 12 AFR/AP 03 AUG 20/25

PREDICTED AFR/AP 04-06 AUG 12/12 10/10 08/08

SOLTERWARN

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HFUS 3 BOU 032200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 215B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 03 AUGUST 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 03/1200Z

TO 03/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. REGION 3257
(S09E 76) PRODUCED AN M7.1N FLARE AT 2028Z MAXIMUM. ALTHOUGH
IMPRESSIVE IN X-RAY, THIS EVENT PRODUCED ONLY MINOR DISCRETE
FREQUENCY RADIO BURSTS. AN M2 X-RAY EVENT AT 1651Z MAXIMUM
WAS DIFFICULT TO ASSOCIATE OPTICALLY DUE TO MINOR SURGING
OCCURRING FROM TWO REGIONS (3257 AND 3234, S12W87) AT THE
X-RAY MAXIMUM. RADIO INFORMATION FROM THE VERY LARGE ARRAY
(VLA) INDICATED REGION 3234 WAS THE MAIN CONTRIBUTOR TO THE
EVENT. ANALYSIS OF REGION 3257 IS DIFFICULT DUE TO LIMB
PROXIMITY, BUT IT IS EVIDENT THIS IS OLD SESC REGION 3203
(S07, CAR 204) INDICATING ITS CENTER IS STILL WELL BEHIND THE
LIMB.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO
REMAIN MODERATE WITH REGION 3257 BEING THE PRIME CONTRIBUTOR.
REGION 3234 COULD STILL PRODUCE A LARGE FLARE AS IT ROTATES
OVER EAST LIMB. REGION 3247 (N16W22), WHICH DEVELOPED A WEAK
DELTA TODAY, COULD PRODUCE A SMALL M-CLASS EVENT.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD
HAS BEEN MILDLY ACTIVE DURING THE PAST NINE HOURS. UNSETLED
CONDITIONS ARE EXPECTED THROUGH THE FORECAST PERIOD.

III. EVENT PROBABILITIES 04 AUGUST - 06 AUGUST

CLASS M 60/65/70

CLASS X 10/10/10

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 03 AUGUST 183

PREDICTED 04-06 AUGUST 185/188/190

90-DAY MEAN 03 AUGUST 180

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 02 AUGUST 13/14

ESTIMATED AFR/AP 03 AUGUST 17/25

PREDICTED AFR/AP 04-06 AUGUST 12/12 - 10/10 - 08/08

SOLTERWARN

BT