

HFUS 1 BOU 311245

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 243A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1300Z 31 AUGUST 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
30/1200Z TO 31/1200Z:

SOLAR ACTIVITY HAS BEEN MODERATE DURING THIS PERIOD. FOUR
M-CLASS EVENTS HAVE BEEN RECORDED THE LARGEST WAS A M3/1B AT
31/0726 UT FROM REGION 3310 (S10E63). MINOR RADIO BURSTS ALONG
WITH STRONG SHORT WAVE FADE, AT 12 MHZ, WERE ALSO OBSERVED.
REGIONS 3298 (N16W13), 3300 (S12E15), 3310 AND 3314 (S15E70)
ALL EXHIBIT DECAY BOTH IN SIZE AND MAGNETIC COMPLEXITY. OTHER
REGIONS APPEAR STABLE OR LITTLE CHANGED.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO CONTINUE AT MODERATE LEVELS DURING
THE FORECAST PERIOD. REGIONS 3298, 3300 AND 3310, ALTHOUGH
SHOWING SIGNS OF DECAY, CONTINUE TO BE ABLE TO PRODUCE M-CLASS
ACTIVITY. AN ISOLATED X-EVENT IS POSSIBLE IF RAPID CHANGE
OCCURS IN THE ABOVE REGIONS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE DURING THE PAST 24 HOURS
EXCEPT DURING THE PERIOD 03-06 UT WHEN A K-VALUE OF FIVE WAS
OBSERVED AT BOULDER. THE FIELD IS EXPECTED TO BE UNSETTLED
DURING THE FORECAST PERIOD.

III. EVENT PROBABILITIES: 01 - 03 SEP

CLASS M 90/90/90

CLASS X 20/20/20

PROTON 10/15/20

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 30 AUG 241

ESTIMATED 31 AUG 232

PREDICTED 01-03 SEP 225/224/218

90 DAY MEAN 30 AUG 189

V. GEOMAGNETIC A INDICES

OBSERVED AFR 29 AUG 20 AP 30 AUG 19

ESTIMATED AFR 30 AUG 17 AFR/AP 31 AUG 14/18

PREDICTED AFR/AP 01/03 SEP 12/17 12/15 12/25

SOLTERWARN

BT

HFUS 3 BOU 312200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 243B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 31 AUGUST 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 31/1200Z TO 31/2100Z: SOLAR ACTIVITY CONTINUES AT A MODERATE LEVEL. REGION 3310 (S10E56) HAS PRODUCED TWO CLASS M FLARES - AN M3/1B AT 0726Z AND AN M1/1B AT 1813Z. THIS REGION CONTAINS A DELTA CONFIGURATION AND IS POSSIBLY IN A GROWTH STAGE. A LOOP PROMINENCE SYSTEM WAS OBSERVED ABOVE REGION 3287 (S18W86) AND WAS APPARENTLY RELATED TO AN M2 X-RAY BURST AT 1404Z. RADIO BURST FLUXES REMAINED SMALL WITH THESE CLASS M FLARES. A SMALL REGION EMERGED AT N18E48 AND WAS NUMBERED 3315.

I B. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD CONTINUE AT A MODERATE LEVEL. REGIONS 3310, 3300, AND TO A LESSER DEGREE 3298, SHOULD COMBINE TO PRODUCE SEVERAL CLASS M FLARES PER DAY. MAJOR FLARES, WHILE STILL SLIGHTLY POSSIBLE, ARE NOT EXPECTED. PENDING FURTHER GROWTH, 3310 SHOULD CONTINUE TO PRODUCE ONLY LOW CLASS M FLARES.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS QUIETED TO UNSETTLED LEVELS SINCE THE DISTURBANCE BETWEEN 0300-0600Z TODAY. UNSETTLED CONDITIONS ARE EXPECTED TO PREDOMINATE DURING THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 01 SEPTEMBER - 03 SEPTEMBER

CLASS M 90/90/90

CLASS X 20/20/20

PROTON 10/15/20

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 31 AUGUST 240

PREDICTED 01-03 SEPTEMBER 238/235/232

90-DAY MEAN 31 AUGUST 190

V. GEOMAGNETIC A INDICES 31 13/15

OBSERVED AFR/AP 30 AUGUST 17/19

ESTIMATED AFR/AP 31 AUGUST 15/18

PREDICTED AFR/AP 01-03 SEPTEMBER 12/17 - 12/15 - 12/25

SOLTER/WARN

BT