

HFUS 1 BOU 111300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 254A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 11 SEPTEMBER 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

10/1200Z TO 10/1200Z:

SOLAR ACTIVITY CONTINUES AT A MODERATE LEVEL. REGION 3317 (N 10W 13) PRODUCED AN M1/1B AT 10/1730UT AND AN M3/2B AT 11/0323UT. THERE WAS A 1B FLARE IN REGION 3323 (N 15W 05) COINCIDENT IN TIME WITH THE 2B IN 3317. THE 0323UT FLARE PRODUCED A 300 F.U. BURST AT 10 CM. A STRONG TYPE IV BURST WAS OBSERVED WITH A C8/1IN FLARE IN 3317 AT 11/0757UT. REGION 3317 RETAINS ITS MULTIPLE DELTA CONFIGURATIONS AND MAGNETIC EVOLUTION CONTINUES AT A RAPID RATE IN SPITE OF AN OVERALL DECREASE IN SUNSPOT AREA. A NEW REGION HAS ROTATED INTO VIEW AND HAS BEEN NUMBERED 3329 (N 18E 68). THIS REGION IS NOT LARGE BUT HAS PRODUCED SEVERAL SUBFLARES AND IS BRIGHT. REGION 3310 (S 10W 84) HAS BEEN QUIET. REGION 3323 HAS REMAINED STABLE IN AREA BUT GRADIENTS HAVE INCREASED ALONG ITS NEUTRAL LINE.

II. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD REMAIN MODERATE. REGION 3317 SHOULD PRODUCE THE MAJORITY OF THE M CLASS ACTIVITY AND THIS REGION REMAINS CAPABLE OF MAJOR FLARE PRODUCTION.

III. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS UNSETTLED UNTIL IT BECAME ACTIVE EARLY ON 11 SEPTEMBER. THE GEOMAGNETIC FIELD IS EXPECTED TO REMAIN AT ACTIVE LEVELS FOR THE FORECAST PERIOD. ACTIVE CONDITIONS ARE FORECAST FOR 12 SEPTEMBER DUE TO PAST MODERATE FLARE ACTIVITY FROM REGION 3317. ACTIVE CONDITIONS FOR 13 AND 14 SEPTEMBER SHOULD BE THE RESULT OF A RECURRENT DISTURBANCE EMANATING FROM AN EQUATORIAL CORONAL HOLE. THIS DISTURBANCE HAS PERSISTED FOR THREE SOLAR ROTATIONS. THE LIKELIHOOD OF A REGION 3317 FLARE INDUCED GEOMAGNETIC STORM REMAINS MODERATE TO HIGH BUT SHOULD NOT OCCUR WITHIN THE NEXT TWO DAYS.

IV. EVENT PROBABILITIES: 12 SEPTEMBER - 14 SEPTEMBER

CLASS M 90/90/90

CLASS X 25/25/25

PROTON 20/25/25

DCAF YELLOW

V. OTTAWA 10.7 FLUX

OBSERVED 10 SEPTEMBER 244

ESTIMATED 11 SEPTEMBER 235

PREDICTED 12-14 SEPTEMBER 233/230/235

90 DAY MEAN 10 SEPTEMBER 201

VI. GEOMAGNETIC A INDICES

OBSERVED AFR 09 SEPTEMBER 12 AP 10 SEPTEMBER 10

ESTIMATED AFR 10 SEPTEMBER 08 AFR/AP 11 SEP 18/18

PREDICTED AFR/AP 12-14 SEPTEMBER 22/22 25/18 20/15

SOLTERWARN

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HFUS-3 BOU 112200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER, COLORADO

SDF NUMBER 254B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 11 SEP 1981

I.A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
11/1200Z TO 11/2100:

SOLAR ACTIVITY HAS BEEN LOW FOR THIS PERIOD WITH ONLY C-CLASS  
XRAY EVENTS REPORTED. REGIONS 3317 (N09W21), 3329 (N19E62),  
3319 (N29W47), 3323 (N15W13) HAVE CONTRIBUTED TO ACTIVITY.

REGION 3329 PROVIDED THE LARGEST OPTICAL ACTIVITY WITH A C4/1B  
FLARE AT 11/1705Z. REGION 3317 PRODUCED MODEST LOW FREQUENCY  
RADIO BURSTS WITH THE SUBNORMAL FLARE AT 1801Z. NO XRAY WAS  
REPORTED WITH THIS EVENT. BOTH REGIONS, 3317 AND 3329 HAVE  
EXHIBITED SIGNIFICANT GROWTH IN WHITE LIGHT. NEW REGIONS 3330  
(S30E01), 3331 (S19E31) WERE NUMBERED TODAY.

I.B. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE DURING THE FORECAST  
INTERVAL. REGION 3317 IS CONSIDERED THE PRINCIPAL PROSPECT FOR  
THIS ACTIVITY WITH POSSIBLE CONTRIBUTIONS FROM 3329.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN ACTIVE, TRENDING TOWARD LOW  
UNSETTLED LEVELS IN THE PERIOD. IT IS EXPECTED TO RETURN TO  
INTERMITTENTLY ACTIVE LEVELS DUE TO SOLAR ACTIVITY DURING RECENT  
DAYS. THE RECENT EQUATORIAL CORONAL HOLE CROSSING OF CENTRAL  
MERIDIAN MAY HOLD LEVELS AT UNSETTLED TO ACTIVE LATE IN THE FORECAST  
PERIOD.

III. EVENT PROBABILITIES: 12 - 14 SEP

CLASS M 90/90/90

CLASS X 25/25/25

PROTON 20/25/25

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 11 SEP 238

PREDICTED 12 - 14 SEP 233/230/235

90 DAY MEAN 11 SEP 202

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 10 SEP 08/10

ESTIMATED AFR/AP 11 SEP 18/18

PREDICTED AFR/AP 12 - 14 SEP 22/22 25/18 20/15

SOLTERWARN

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