

HEUS 1 POU 151300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDE NUMBER 227A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1300Z 15 AUGUST 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 14/1200Z

TO 15/1200Z:

SOLAR ACTIVITY CONTINUES MODERATE WITH REGION 3257 (S09W77) AGAIN MANAGING TO PRODUCE SEVERAL M-CLASS EVENTS. THE LARGEST, AN M4/1B AT 15/0142Z MAXIMUM HAD LITTLE RADIO RESPONSE ASSOCIATED WITH IT. ALTHOUGH THIS REGION IS DECAYING FAIRLY RAPIDLY NOW, THE STRONG GRADIENTS AND MAGNETIC DELTA IN ITS TRAILER PORTION HAVE NOT WEAKENED SIGNIFICANTLY. REGION 3266 (S16E39) IS A LARGER, GROWING SPOT GROUP, BUT AS YET HAS NOT DEVELOPED MUCH MAGNETIC COMPLEXITY, AND THUS HAS PRODUCED ONLY MINOR SUBFLARES. NEW REGION 3277 (S24W40) IS A RAPIDLY GROWING GROUP, WHILE SURGING AND LEADING SPOTS ARE NOW VISIBLE AT S02E85 AND S18E90.

II. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD REMAIN MODERATE. AS REGION 3257 ROTATES OVER WEST LIMB TOMORROW, REGION 3266 IS EXPECTED TO FINALLY BECOME ACTIVE. EVIDENCE OF A SIGNIFICANT REGION AT EAST LIMB WAS SHOWN ON THE 2800MHZ EAST-WEST SCAN, AND THIS ALONG WITH DEVELOPMENT ON THE DISK IS ALSO EXPECTED TO MAINTAIN THE MODERATE LEVEL.

III. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD REMAINED UNSETTLED WITH THE EXPECTED SHOCK AND ACTIVE CONDITIONS FROM THE X2/1B FLARE ON 12 AUGUST NEVER MATERIALIZING. IT NOW APPEARS THE SHOCK WILL NOT ARRIVE, SO ONLY UNSETTLED LEVELS ARE FORECAST FOR THE NEXT 24 HOURS. ACTIVE CONDITIONS ARE EXPECTED ON 17 AUGUST DUE TO A FAVORABLY LOCATED CORONAL HOLE.

IV. EVENT PROBABILITIES: 16 AUGUST - 18 AUGUST

CLASS M 95/95/85

CLASS X 15/10/10

PROTON 15/10/10

PCAF GREEN

V. OTTAWA 10.7 FLUX

OBSERVED 14 AUG 203

ESTIMATED 15 AUG 212

PREDICTED 16-18 AUG 215/210/210

90 DAY MEAN 14 AUG 176

VI. GEOMAGNETIC A-F INDICES

OBSERVED AFR 13 AUG 10 AP 14 AUG 10

ESTIMATED AFR 14 AUG 09 AFR/AP 15 AUG 10/12

PREDICTED AFR/AP 16 - 18 AUG 12/10 - 15/15 - 10/08

SOLTERWARN

BT

HEUS 3 POU 152200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 227B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 15 AUGUST 1981

I.A. ANALYSTS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 15/1200Z TO 15/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 11 HOURS. THE LARGEST EVENT WAS C6/SN IN REGION 3257 WHICH HAS BEGUN WEST LIMB TRANSIT AT S08. ITS F-CLASS SPOT GROUP CONTINUES WITH A SMALL DELTA CONFIGURATION IN ITS TRAILING PENUMBRA. THE LARGE COMPACT F-CLASS GROUP (REGION 3266, S15E31) HAS CHANGED LITTLE AND REMAINS INACTIVE AND SIMPLY STRUCTURED. ITS DELTA CONFIGURATION IS WEAK AND INCONSEQUENTIAL. REGION 3274 (S07E54) IS PERHAPS MORE INTERESTING IN SPITE OF ITS MODEST SIZE BECAUSE ITS SPOT GROUP AXIS IS ORIENTED 90-DEGREES FROM NORMAL. REGION 3278 (S00E72) IS A QUIESCENT REGION WITH A SMALL H-SPOT. REGION 3279 (S19E74) IS NOW VISIBLE AS A DAO GROUP WITH COMPACT BRIGHT PLACE.

I.B. SOLAR ACTIVITY FORECAST: RETURNING REGIONS AND DISK DEVELOPMENTS MAY NEARLY OFFSET THE EFFECT OF REGION 3257 PASSING OVER WEST LIMB.

I.C. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN QUIET FOR ALL THIS PERIOD UNTIL UNSETTLED CONDITIONS BEGAN AT ABOUT 2000Z. UNSETTLED TO SLIGHTLY ACTIVE CONDITIONS ARE EXPECTED FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 16 AUGUST - 18 AUGUST

CLASS M 95/95/85

CLASS X 10/10/10

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 15 AUGUST 219

PREDICTED 16-18 AUGUST 215/210/210

90-DAY MEAN 15 AUGUST 176

V. GEOMAGNETIC A. INDICES

OBSERVED AFR/AP 14 AUGUST 08/10

ESTIMATED AFR/AP 15 AUGUST 07/10

PREDICTED AFR/AP 16-18 AUGUST 12/10 - 15/15 - 10/08

SOLARFLARE WARN

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