

HEUS 1 BOU 301245

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SOF NUMBER 273 A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1300Z 30 SEPT 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
29/1200Z TO 30/1200Z:

SINCE THE M1 XRAY EVENT AT 291431Z (MAX), SOLAR ACTIVITY HAS
BEEN LOW. HOWEVER, AN INCREASE IN "C" CLASS FLARES HAS BEEN
NOTED AND THE REGIONS RESPONSIBLE FOR THESE FLARES ARE 3360
(S14W28), 3363 (S07W34), 3364 (S15W13), 3365 (N08W01), 3368
(N08W33), 3370 (N15E26), 3372 (S07E01) AND 3374 (S18E51). THE
MOST MATURE REGION OF THIS GROUP IS 3368 WHICH IS NOW AN "E"
TYPE GROUP WITH 30 SPOTS. THE REST ARE SMALL "D", "H" AND "C"
TYPE GROUPS. A LARGE AREA OF THE EAST LIMB IS DISPLAYING
PROMINENCE ACTIVITY. NO OTHER MAJOR CHANGES ON THE DISK AND
LIMBS HAVE BEEN REPORTED.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY SHOULD BE LOW TO MODERATE DUE TO THE BEHAVIOR OF
THE ABOVE MENTIONED REGIONS. ALSO, OLD REGION 3317 SHOULD RETURN
TO THE DISK TODAY. THE PRESENCE OF 3317 IS EXPECTED TO CAUSE AN
UPWARD TREND IN ACTIVITY OVER THE THREE DAY PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED. UNSETTLED CONDITIONS
SHOULD CONTINUE UNTIL 2 OCT WHEN ACTIVE CONDITIONS SHOULD PREVAIL
AS A CORONAL HOLE MANIFEST ITSELF.

III. EVENT PROBABILITIES: 1 - 3 OCT

CLASS M 50/60/70

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 29 SEP 204

ESTIMATED 30 SEP 208

PREDICTED 01-03 OCT 212/215/222

SO DAY MEAN 29 SEP 210

V. GEOMAGNETIC A INDICES

OBSERVED AFR 28 SEP 07 AP 29 SEP 13

ESTIMATED AFR 29 SEP 13 AFR/AP 30 SEP 09/14

PREDICTED AFR/AP 01-03 OCT 10/14 15/15 12/14

SOLTERWARN

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HEUS 3 ROL 302200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDE NUMBER 273B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200Z 30 SEPTEMBER 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200Z TO 30/2100Z: SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 9 HOURS. HOWEVER, REGION 3374 (S18E46) PRODUCED A C7/1B FLARE MAXING AT 1726Z. NO RADIO NOISE WAS ASSOCIATED WITH THIS EVENT. TWO NEW REGIONS HAVE ROTATED OVER THE EAST LIMB IN THE LAST FEW HOURS. THEY ARE 3376 (S06E81), AN H-TYPE SPOT GROUP, AND 3377 (N08E83), NOW OBSERVED TO BE A C-TYPE SPOT GROUP OF IMPRESSIVE PROPORTIONS. SPRAYS OUT TO .15 SOLAR RADII WERE REPORTED FROM THIS REGION BETWEEN 1818Z AND 1830Z AND AGAIN BETWEEN 1957Z AND 2020Z WITH LOOPS FORMING BETWEEN 2010Z AND 2028Z.

IP, SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE BUT INCREASING THROUGHOUT THE FORECAST PERIOD AS 3377 ROTATES ONTO THE DISK.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED TO MILDLY ACTIVE. CONDITIONS ARE EXPECTED TO BE PREDOMINATELY UNSETTLED FOR THE NEXT THREE DAYS. PERIODS AT ACTIVE LEVELS ARE POSSIBLE ON 02 OCTOBER IN RESPONSE TO HIGH SPEED SOLAR WIND FROM A NORTHERN CORONAL HOLE.

III. EVENT PROBABILITIES 01 OCTOBER - 03 OCTOBER

CLASS M 50/60/70

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 SEPTEMBER 203

PREDICTED 01-03 OCTOBER 207/210/217

90-DAY MEAN 30 SEPTEMBER 210

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 SEPTEMBER 15/13

ESTIMATED AFR/AP 30 SEPTEMBER 13/14

PREDICTED AFR/AP 01-03 OCTOBER 10/14 - 15/15 - 12/14

SOLTERWARN

BT