

HEUS-1 EQU 301245

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO  
SDF NUMBER 073 A

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

I. 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 "G" TYPE GROUPS. A LARGER AREA OF THE EAST LIMB IS DISPLAYING PROMINENCE ACTIVITY. NO OTHER MAJOR CHANGES ON THE DISK AND LIMBS HAVE BEEN REPORTED.

II. 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.

III. GEOPHYSICAL SUMMARY AND FORECAST:

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

IV. EVENT PROBABILITIES: 1 - 3 OCT

CLASS M 150/60/70

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

V. OTTAWA 10.7 FLUX

OBSERVED 29 SEP 204

ESTIMATED 30 SEP 208

PREDICTED 01-03 OCT 212/215/222

90 DAY MEAN 29 SEP 210

VI. GEOMAGNETIC A-F INDICES

OBSERVED AFR 28 SEP 07 AFR 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

SOLTEWMARN

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HEUS 3 RCU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDE NUMBER 273B

JOINT USAF/NOAA REPRT 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 19 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.

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

III. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETLED TO MILDLY ACTIVE. CONDITIONS ARE EXPECTED TO BE PREDOMINATELY UNSETLED 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.

IV. EVENT PROBABILITIES 01 OCTOBER - 03 OCTOBER

CLASS M 50/60/70

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

V. OTTAWA 10.7 CM FLUX

OBSERVED 30 SEPTEMBER 203

PREDICTED 01-03 OCTOBER 207Y210/217

90-DAY MEAN 30 SEPTEMBER 210

VI. 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

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