

HEUS 1 BOU 071300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 127A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 07 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM  
06/1200UT TO 07/1200UT:

SOLAR ACTIVITY HAS BEEN LOW DURING THE PAST 24 HOURS. HALF A DOZEN SMALL C-CLASS SUBFLARES HAVE BEEN NOTED BY SATELLITE X-RAY SENSORS, BUT ONLY TWO OF THESE BURSTS HAD OPTICAL FLARES ASSOCIATED WITH THEM (DUE TO POOR OBSERVING CONDITIONS AT MOST SITES). REGION 3080 (N16W25), WHICH PRODUCED TWO SIZEABLE BURSTS ON 05 MAY, HAS BEEN VERY QUIET FOR THE PAST 24 HOURS. IT HAS CLEARLY WEAKENED IN WHITE LIGHT BUT HAS EXPERIENCED SOME GROWTH IN LEADER POLARITY SATELLITE SPOTS. REGION 3099 (N09E57) IS NOW IN A BETTER POSITION TO BE VIEWED. IT HAS A LARGE COMPLEX-LOOKING LEADER SPOT GROUP AND APPARENTLY CONTAINS A DELTA CONFIGURATION. DESPITE ITS THREATENING APPEARANCE THE REGION HAS BEEN QUIET IN RECENT DAYS. THE DECLINE OF REGION 3079 (N06W29) HAS REVERSED DRAMATICALLY IN THE PAST 24 HOURS. THE REGION IS NOW GROWING RAPIDLY. POLARITIES ARE ONCE AGAIN MIXED AND PENUMBRA IS FORMING ON INTERMEDIATE SPOTS. THE EMERGENCE OF STRONG NEW FIELDS IN THE REGION IS INDICATED BY ARCH FILAMENTS. REGION 3090 (S01E17), WHICH HAS PREVIOUSLY APPEARED STABLE, IS NOW SHOWING SIGNIFICANT GROWTH.

IB. SOLAR ACTIVITY FORECAST:

DESPITE THE LACK OF FLARES IN THE PAST 24 HOURS, THE PACE OF C-CLASS SUBFLARE ACTIVITY IS ALMOST CERTAIN TO INCREASE DURING THE NEXT THREE DAYS. THE FOUR REGIONS MENTIONED ABOVE EACH SEEM CAPABLE OF PRODUCING AN ISOLATED M-CLASS FLARE. REGIONS 3080 AND 3099 APPEAR TO HAVE THE POTENTIAL TO PRODUCE AN X-CLASS BURST SOMETIME DURING THE NEXT THREE OR FOUR DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN QUIET TO UNSETTLED DURING THE PAST 24 HOURS. A MINOR DISTURBANCE IS EXPECTED ON 08-09 MAY DUE TO THE X1 AND M4 FLARES IN REGION 3080 ON 05 MAY. THERE IS ALSO THE POSSIBILITY THAT ACTIVITY LEVELS WILL BE BOOSTED ON 09 MAY DUE TO LINGERING EFFECTS OF THE MAJOR GEOMAGNETIC DISTURBANCE WHICH STRUCK THE EARTH LAST SOLAR ROTATION.

III. EVENT PROBABILITIES: 08-10 MAY 1981

CLASS M 60/60/60

CLASS X 20/20/20

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 40.7 FLUX

OBSERVED 06 MAY 227

ESTIMATED 07 MAY 224

PREDICTED 08-10 MAY 230/237/240

90 DAY MEAN 06 MAY 212

V. GEOMAGNETIC A INDICES

OBSERVED AFR 05 MAY 03 AP 06 MAY 08

ESTIMATED AFR 06 MAY 07 AP 07 MAY 07

HFUS 3 BOU 072200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDE NUMBER 127B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200 UT 07 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 07/1200 UT TO 07/2200 UT: SOLAR ACTIVITY CONTINUED TO REMAIN LOW DESPITE A DEFINITE INCREASE IN RADIO EMISSION FROM SEVERAL REGIONS. REGION 3099 (N08E51) PRODUCED A C3/1B AT 1430Z MAXIMUM WITH MINOR RADIO RESPONSE, WHILE REGION 3079 (N06W22) PRODUCED A C4/SB AT 1750Z MAXIMUM WITH STRONG RADIO BURSTS AT 245 AND 415 MHZ. REGION 3080 (N17W30) HAS REMAINED FAIRLY QUIET WITH ONLY SUBFLARES REPORTED. NEW REGION 3101 (N18E16) EMERGED ON THE DISK AS A B-TYPE GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO REMAIN GENERALLY LOW, BUT AN ISOLATED M-CLASS EVENT IS POSSIBLE FROM REGIONS 3099, 3080 AND 3079.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD CONTINUED GENERALLY QUIET THROUGH THE PAST 10 HOURS. INCREASINGLY ACTIVE LEVELS ARE EXPECTED DURING THE NEXT 24 HOURS IN RESPONSE TO FLARES OBSERVED ON 05 MAY.

III. EVENT PROBABILITIES 08 MAY - 10 MAY

CLASS M 60/60/60

CLASS X 20/20/20

PROTON 15/15/15

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 07 MAY 230

PREDICTED 08-10 MAY 230/237/240

90-DAY MEAN 07 MAY 212

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 06 MAY 06/08

ESTIMATED AFR/AP 07 MAY 08/15

PREDICTED AFR/AP 08-10 MAY 15/15 - 20/25 - 12/25

SOLTERWARN

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