

HFUS 1 BOU 191400

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 109A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 1200UT 19 APRIL 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM
18/1200UT TO 19/1200UT:

SOLAR ACTIVITY HAS BEEN HIGH WITH THREE MAJOR EVENTS FROM REGION 3038 (N10W56): X1/2B AT 2118Z, M3/2B AT 0654Z AND M1/SB AT 0832Z. THIS SMALL BUT COMPLEX CLASS C SPOT GROUP CONTINUES ITS PROPER MOTION INTO THE TRAILING PORTION OF REGION 3035 (N14W68), STILL THE DOMINANT SPOT GROUP ON THE DISK AT CLASS EHI. GROWTH HAS BROUGHT REGION 3045 (S06W28) TO A LARGE CLASS D SPOT GROUP. ACTIVE FILAMENTS CONTINUE WITHIN AND BORDERING REGION 3049 (N15E12). A FAINT PLAGE AT S46E80 MARKS THE RETURN OF REGION 2999 WHICH WAS PRODUCING MAJOR EVENTS DURING ITS WEST LIMB PASSAGE OVER TWO WEEKS AGO.

I B. SOLAR ACTIVITY FORECAST:

A MODERATE LEVEL OF ACTIVITY IS EXPECTED UNTIL REGION 3038 COMPLETES WEST LIMB PASSAGE ON 22 APRIL. SOLAR RADIO FLUX AND SUNSPOT NUMBER ARE EXPECTED TO DROP RAPIDLY TOWARD MORE NORMAL LEVELS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD BECAME ACTIVE AFTER A SUDDEN COMMENCEMENT OCCURRED AT 1500Z. MAXIMUM ACTIVITY WAS 0100 - 0500Z. ACTIVITY HAS BEEN UNSETTLED SINCE 0500Z. UNSETTLED CONDITIONS WILL DOMINATE THE NEXT THREE DAYS WITH OCCASIONAL ACTIVE PERIODS NEAR LOCAL MIDNIGHT.

III. EVENT PROBABILITIES: 20 - 22 APRIL

CLASS M . 95/95/85

CLASS X . 20/10/05

PROTON . 10/10/10

PCAF . GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED . . 18 APR 227

ESTIMATED . . 19 APR 220

PREDICTED . . 20-22 APR 215/200/190

90 DAY MEAN . . 18 APR 210

V. GEOMAGNETIC A INDICES

OBSERVED AFR . . 17 APR 21 AP 18 APR 12

ESTIMATED AFR . . 18 APR 13 AFR/AP 19 APR 22/32

PREDICTED AFR/AP . . 20-22 APR 12/10 12/15 10/12

SOLTERWARN

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HFUS 3 BOU 192200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 109B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 0200UT 19 APR 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

19/1200UT TO 19/2200UT:

SOLAR ACTIVITY HAS BEEN MODERATE SINCE 19/1200UT. TWO CLASS M1 X-RAY FLARES OCCURRED AT 1539UT AND 1713UT. THE FIRST WAS A IN, THE SECOND A 1B, BOTH FROM REGION 3038 (N10W63). NUMEROUS SUBFLARES HAVE OCCURRED IN REGIONS 3035 (N15W73), 3038, 3045 (S07W35), 3048 (N19W15), 3051 (N25E10), AND 3053 (N25W49). TWO NEW REGIONS WERE OBSERVED TODAY, 3060 (N12W06) AND 3061 (S42E76).

I B. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE MODERATE DUE TO SUSTAINED ACTIVITY IN REGION 3038.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN GENERALLY ACTIVE WITH MINOR STORM CONDITIONS FROM 00-06UT. THE FIELD IS EXPECTED TO BECOME UNSETTLED FOR THE NEXT THREE DAYS WITH PERIODS OF ACTIVE CONDITIONS.

III. EVENT PROBABILITIES: 20 - 22 APR

CLASS M 95/95/85

CLASS X 20/10/05

PROTON 10/10/10

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 19 APR 215

PREDICTED 20-22 APR 205/190/180

90 DAY MEAN 19 APR 210

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 APR 14/12

ESTIMATED AFR/AP 19 APR 29/40

PREDICTED AFR/AP 20-22 APR 12/15 12/15 10/12

SOLTERWARN

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