

HFUS 1 BOU 241300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 144A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 24 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

23/1200UT TO 24/1200UT:

SOLAR ACTIVITY HAS BEEN MODERATE. A M1 XRAY EVENT AT 24/0442UT CAN ONLY BE ASSOCIATED WITH A SUBFAINT FLARE AND SURGES FROM REGION 3112 (N15W85) AS IT ROTATES BEYOND WEST LIMB. REGION 3113 (S25W45) HAS BEGUN TO DECAY AND PRODUCED ONLY SUBFLARES TODAY. A NEW REGION 3128 (S27W81) DEVELOPED BENEATH A LARGE FILAMENT AND HAS PRODUCED SEVERAL SUBFLARES AND FREQUENT SURGE ACTIVITY THROUGHOUT THE DAY. NEW REGION 3129 (ABOUT S08E81) ROTATED ONTO THE DISK WITH A LARGE H TYPE SPOT GROUP. SURGE ACTIVITY AT N07 E LIMB MAY INDICATE THE RETURN OF REGION 3079 WHICH WAS MODERATELY ACTIVE ON ITS LAST ROTATION.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE LOW WITH SUBFLARE ACTIVITY FROM SEVERAL REGIONS.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN UNSETLED TO ACTIVE POSSIBLY DUE TO A FILAMENT DISAPPEARANCE 20-21 MAY. UNSETLED TO QUIET CONDITIONS ARE EXPECTED FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES: 25 - 27 MAY

CLASS M 20/20/20

CLASS X 02/02/02

PROTON 02/02/02

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 23 MAY 156

ESTIMATED 24 MAY 154

PREDICTED 25-27 MAY 154/156/160

90 DAY MEAN 63 MAY 210

V. GEOMAGNETIC A INDICES

OBSERVED AFR 22 MAY 09 AP 23 MAY 24

ESTIMATED AFR 23 MAY 14 AFR/AP 24 MAY 14/15

PREDICTED AFR/AP 25-27 MAY 10/15 08/10 08/10

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HEUS 3 BOU 242200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 144B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200 UT 24 MAY 1981

I A. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 24/1200 UT TO 24/2200 UT : SOLAR ACTIVITY WAS AT LOW LEVELS DURING THIS 10-HOUR PERIOD, BUT THE FREQUENCY OF C-CLASS SUBFLARE ACTIVITY WAS HIGHER THAN IN RECENT DAYS. MOST OF THE FLARES WERE ATTRIBUTED TO REGION 3128 (S22W84), WHICH WILL BE ROTATING BEHIND THE DISK DURING THE NEXT 12 HOURS. NEW REGIONS NUMBERED TODAY INCLUDED 3129 (S07E73) AND 3130 (N04E19).

I B. SOLAR ACTIVITY FORECAST : SOLAR ACTIVITY IS EXPECTED TO BE LOW TOMORROW, BUT THE PROBABILITY OF MAJOR FLARE ACTIVITY WILL BE INCREASING OVER THE NEXT FEW DAYS AS PREVIOUSLY ACTIVE LONGITUDES RETURN AT THE EAST SOLAR LIMB.

II. GEOPHYSICAL SUMMARY AND FORECAST : THE GEOMAGNETIC FIELD HAS CONTINUED AT THE UNSETTLED TO ACTIVE LEVELS WHICH HAVE BEEN EXPERIENCED FOR THE LAST 4 DAYS.

III. EVENT PROBABILITIES 25 MAY - 27 MAY

CLASS M 30/35/40

CLASS X 02/05/05

PROTON 02/02/02

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 24 MAY 166

PREDICTED 25-27 MAY 170/175/180

90-DAY MEAN 24 MAY 213

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 23 MAY 18/24

ESTIMATED AFR/AP 24 MAY 17/25

PREDICTED AFR/AP 25-27 MAY 10/15 - 08/10 - 08/10

SOLTERWARN

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