

FUS 3 BOU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 120

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 30 APR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/2100 TO 30/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE. THE MOST SIGNIFICANT EVENT WAS AN M2 X-RAY BURST STARTING AT 1757Z AND REACHING MAXIMUM AT 0826Z. THIS EVENT WAS ASSOCIATED WITH SIMULTANEOUS OPTICAL FLARES IN REGIONS 4165 (S09E56) AND 4154 (S14W29): A 1N IN REGION 4165 AT 0806Z (MAX) AND A 2B IN REGION 4154 AT 0822Z (MAX). THE 2B, WHICH OCCURRED AROUND THE TRAILER SPOT, HAD PARALLEL RIBBONS AND 20 PERCENT UMBRAL COVERAGE. A PORTION OF THE FLARE EXTENDED TOWARD THE LEADER OF REGION 4162 (S15W16). CENTIMETRIC AND METER WAVELENGTH RADIO BURSTS OCCURRED WITH BOTH THESE OPTICAL FLARES. THE SUN HAS BEEN QUIET SINCE THIS EVENT. REGION 4154 CONTINUES A SLOW DECAY;

REACTIVATION OF THE NEUTRAL LINE FILAMENT COULD TRIGGER ANOTHER SIGNIFICANT FLARE IN THIS REGION. REGION 4162 HAD APPEARED TO HAVE STABILIZED ITS GROWTH; HOWEVER, OVER THE PAST FEW HOURS A STRONG ARCH FILAMENT SYSTEM HAS DEVELOPED IN THE SOUTH-CENTRAL PORTION OF THE REGION. REGION 4165 CONTINUES A SLOW GROWTH PATTERN.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. ISOLATED CLASS M ACTIVITY IS POSSIBLE FROM REGIONS 4154/4162 AND 4165.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 29/2100Z TO 30/2100Z:

THE STORM WHICH BEGAN GRADUALLY AFTER 29/1200Z ABATED AFTER 30/0900Z. SINCE THEN, THE FIELD HAS BEEN ACTIVE.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE FIELD IS EXPECTED TO BE GENERALLY ACTIVE THROUGHOUT THE FORECAST PERIOD. HOWEVER, A SHORT PERIOD AT STORM LEVEL MAY BE EXPERIENCED DURING LOCAL NIGHT TIME ON 03 MAY.

III. EVENT PROBABILITIES 01 MAY-03 MAY

CLASS M 40/40/40

CLASS X 01/01/01

EROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 APR 145

PREDICTED 01 MAY-03 MAY 143/140/137

90 DAY MEAN 30 APR 121

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 APR 026/037

ESTIMATED AFR/AP 30 APR 024/035

PREDICTED AFR/AP 01 MAY-03 MAY 014/020-020/025-025/030

SOLTERWARN

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