

HFUS 1 BOU 281310

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 118A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 28 APR 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

27/1200UT TO 28/1200UT:

SOLAR ACTIVITY HAS BEEN MODERATE THE PAST 24 HOURS DUE TO AN M3/1N FLARE AT 27/2301UT FROM REGION 3049, NOW OVER WEST LIMB. A TENFLARE OF 1800 FLUX UNITS AND NUMEROUS OTHER RADIO BURSTS ACCOMPANIED THIS WEST LIMB FLARE. NO OTHER OPTICAL REPORTS OF FLARES WERE MADE DURING THIS TIME PERIOD. THE LARGEST X-RAY EVENT SINCE THE M3 WAS A C4 AT 28/1015UT.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE. REGION 3067 (N03E22) IS THE PRIMARY POTENTIAL SOURCE OF MODERATE ACTIVITY, ALTHOUGH IT IS CURRENTLY STABLE.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS BEEN AT MINOR STORM LEVELS UNTIL APPROXIMATELY 27/1500UT, THEN BECOMING UNSETTLED TO QUIET. UNSETTLED CONDITIONS ARE EXPECTED FOR THE FORECAST PERIOD. PROTON FLUXES ARE AT EVENT THRESHOLD AT THE TIME OF THIS REPORT AND ARE EXPECTED TO CONTINUE DECREASING, DROPPING BELOW EVENT THRESHOLD WITHIN THE NEXT SEVERAL HOURS.

III. EVENT PROBABILITIES: 29 APR - 01 MAY

CLASS M 50/50/50

CLASS X 05/05/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 FLUX

OBSERVED 27 APR 196

ESTIMATED 28 APR 180

PREDICTED 29 APR - 01 MAY 175/180/180

90 DAY MEAN 27 APR 213

V. GEOMAGNETIC A INDICES

OBSERVED AFR 26 APR 46 AP 27 APR 39

ESTIMATED AFR 27 APR 33 AFR/AP 28 APR 08/10

PREDICTED AFR/AP 29 APR - 01 MAY 12/15 12/15 12/15

SOLTERWARN

BT

HFUS 3 BOU 282200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 118B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY
ISSUED 2200 UT 28 APRIL 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 28/1200 UT
TO 28/2200 UT: SOLAR ACTIVITY HAS BEEN HIGH. REGION 3049 (NW 16)
IS A PROBABLE SOURCE FOR A SLOW RISE X-RAY EVENT BEGINNING AFTER
1600Z GIVING A MAXIMUM OF C6 AFTER 1730Z AND SHOWING STRONG PEAKS
IN HARD X-RAY. A SLOW RISING RADIO NOISE EVENT FOLLOWED THE HARD
X-RAY MAXIMUM. REGION 3049 IS ALSO A PROBABLE SOURCE OF AN X1
EVENT AT 2144Z MAXIMUM WITH NO OPTICAL OBSERVATION AND WITH
MODERATE CENTIMETRIC OUTPUT. FLUX AT 2695 MHZ WAS 640 UNITS
ASSOCIATED WITH THIS EVENT.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY WILL BE MODERATE TO
LOW WITH LITTLE POTENTIAL FOR ACTIVITY CURRENTLY ON THE DISK, AND
RETURN OF OLD REGIONS 3025, 3026 IS NOT OBSERVED. THE INFLUENCE
OF REGION 3049 MAY CONTINUE BRIEFLY.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD
SHOULD BECOME UNSETTLED TO NEAR QUIET CONDITIONS FROM BRIEF
ACTIVE LEVELS TODAY. IT SHOULD REMAIN UNSETTLED TO NEAR QUIET
LEVELS PENDING EFFECTS FROM CURRENT ACTIVITY.

III. EVENT PROBABILITIES 29 APRIL - 01 MAY

CLASS M 50/50/50

CLASS X 05/05/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 28 APRIL 172

PREDICTED 29 APRIL - 01 MAY 175/180/180

90-DAY MEAN 28 APRIL 213

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 27 APRIL 39/39

ESTIMATED AFR/AP 28 APRIL 17/14

PREDICTED AFR/AP 29 APRIL - 01 MAY 12/15 - 12/15 - 12/15

SOLTERWARN

BT