

US 1 BOU 301400

FROM SEPAC ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 120A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 30 APR 1981

IA. ANALYSIS OF SOLAR ACTIVE REGION AND ACTIVITY FROM 29/1200UT
TO 30/1200UT

SOLAR ACTIVITY HAS BEEN LOW FOR THE PAST 24 HOURS. ONLY SUBFLARES
HAVE OCCURRED IN REGIONS 3067 (N03W05), 3078 (S08E45), AND 3080
(N16E67). ADDITIONALLY A SPRAY WAS OBSERVED AT 30/0310UT TO .61
RADI ACCOMPANIED BY TYPE II AND TYPE IV RADIO SWEEPS AND OTHER
BURSTS ACROSS THE RADIO SPECTRUM. 820 FLUX UNITS WERE OBSERVED AT
245 MHZ. THIS EVENT WAS ASSOCIATED WITH REGION 3049, NOW THREE DAYS
OVER THE NORTH WEST LIMB. NEW REGIONS 3078 AND 3080 ARE GROWING AND
ERUPTIVE. REGION 3067 APPEARS TO HAVE STARTED SLOW DECAY AND STILL
HAS WEAK MAGNETIC GRADIENTS, BUT SHOWS SOME FEATURES CHARACTERISTIC
OF ACTIVE REGIONS.

IB. SOLAR ACTIVITY FORECAST

SOLAR ACTIVITY IS EXPECTED TO BE LOW FOR THE NEXT THREE DAYS.
RESIDUAL POTENTIAL IN REGION 3067 AND CONTINUED GROWTH IN REGIONS
3078 AND 3080 MAY PRODUCE ONE OR TWO SMALL M-CLASS X-RAY EVENTS
DURING THIS FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST

THE GEOMAGNETIC FIELD WAS ACTIVE ON 29 APR AND IS EXPECTED TO BECOME
UNSETTLED WITH OCCASSIONAL ACTIVE PERIODS FOR THE NEXT THREE DAYS.
THE PROTON EVENT ENDED BRIEFLY YESTERDAY, HAS RESUMED, PASSING EVENT
THRESHOLD AT 30/0610UT AND REACHING A MAXIMUM OF 52 PARTICLES
GREATER THAN 10 MEV AT 0940UT. THIS EVENT IS STILL IN PROGRESS.
A PCA OF 1.6 HAS REMAINED BELOW EVENT THRESHOLD.

III. EVENT PROBABILITIES 01-03 MAY

CLASS M 50/40/40

CLASS X 01/01/01

PROTON 01/01/01

CAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 29 APR 174

ESTIMATED 30 APR 170

PREDICTED 01-03 MAY 175/180/181

90-DAY MEAN 29 APR 212

V. GEOMAGNETIC A INDICES

OBSERVED AFR 28 APR 17 AP 29 APR 27

ESTIMATED AFR 29 APR 22 AFR/AP 30 APR 12/15

PREDICTED AFR/AP 01-03 MAY 15/20 - 12/15 - 15/15

SOLTERWARN

BT

HFUS 3 BOU 302200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 120B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200UT 30 APR 1981.

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 30/1200UT
TO 30/2200UT.

SOLAR ACTIVITY HAS BEEN LOW. A PROTON EVENT BEGINNING 30/0610Z
REACHED A MAXIMUM OF 90 PARTICLES GREATER THAN 10 MEV AFTER THE
1200Z FORECAST AND IS STILL IN PROGRESS. A POLAR CAP ABSORPTION
THRESHOLD WAS REACHED DURING THE DAY. THIS EVENT IS STILL IN
PROGRESS. REGIONS NUMBERED TODAY ARE 3081 (N04E65) AND 3082 (N13W13)

IB. SOLAR ACTIVITY FORECAST

SOLAR ACTIVITY IS EXPECTED TO REMAIN AT LOW LEVELS, WITH REGION 3080
(N16E59) PROVIDING THE GREATEST PROBABILITY OF ACTIVITY. SINCE
MOVING FURTHER ONTO THE DISK THIS REGION SHOWS AN AREA OF 270 MILL-
IONTHS AND IS THE LARGEST VISIBLE REGION.

II. GEOPHYSICAL SUMMARY AND FORECAST

THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED, NEAR QUIET CONDITIONS
TODAY. THIS LEVEL OF ACTIVITY SHOULD PERSIST FOR APPROXIMATELY
48 HOURS.

III. EVENT PROBABILITIES 01-03 MAY

CLASS M 50/40/40

CLASS X 01/01/01

PROTON 01/01/01

PCAF IN PROGRESS

IV. OTTAWA 10.7 CM FLUX

OBSERVED 30 APR 173

PREDICTED 01-03 MAY 175/180/181

90-DAY MEAN 30 APR 212

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 29 APR 17/27

ESTIMATED AFR/AP 30 APR 10/15

PREDICTED AFR/AP 01-03 MAY 15/20 - 12/15 - 15/15

SOLTERWARN

BT