

US 1 BOU 301400

FROM SPACE 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 RADII ACCCOMPANIED 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 UNSETLED 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

PCAF 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

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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.

I A. 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).

I B. 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 MILLIONTHS AND IS THE LARGEST VISIBLE REGION.

II. GEOPHYSICAL SUMMARY AND FORECAST
THE GEOMAGNETIC FIELD HAS BEEN UNSETLED, 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
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