

HFUS 1 BOU 291307

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 119A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 1200UT 29 APR 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM

28/1200UT TO 29/1200UT:

SOLAR ACTIVITY HAS BEEN HIGH DURING THE PAST 24 HOURS DUE TO AN X1 AT 28/2114UT FROM REGION 3049, NOW TWO DAYS OVER THE WEST LIMB. POST FLARE LOOPS AND A TENFLARE OF 640 FLUX UNITS WERE ASSOCIATED WITH THIS EVENT. REGION 3067 (N02E07) HAS SHOWN SIGNS OF POTENTIAL ACTIVITY NEAR ITS LEADER SPOT, BUT THE REGION AS A WHOLE HAS ELONGATED AND HAS UNIMPRESSIVE MAGNETIC GRADIENTS.

IB. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BECOME LOW TO MODERATE. MODERATE ACTIVITY CAN MOST LIKELY OCCUR IN REGION 3067. ALSO, SURGING ON THE EAST LIMB MAY INDICATE A NEW SOURCE OF ACTIVITY.

II. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD WAS UNSETTLED TODAY WITH A BRIEF ACTIVE PERIOD FROM 00-03UT. UNSETTLED CONDITIONS ARE EXPECTED TO PREVAIL FOR THE FORECAST PERIOD WITH BRIEF PERIODS OF ACTIVE CONDITIONS. A SATELLITE PROTON EVENT IS IN PROGRESS. A PROTON ENHANCEMENT WAS OBSERVED AT THE END OF 28 APR AND GRADUALLY CLIMBED TO AN EVENT THRESHOLD OF 10 COUNTS/SEC AT 29/0310UT. A PCA OF 1.7 HAS FALLEN JUST SHORT OF EVENT THRESHOLD.

III. EVENT PROBABILITIES: 30 APR - 02 MAY

CLASS M 50/60/70

CLASS X 05/05/10

PROTON 05/05/05

PCAF IN PROGRESS

IV. OTTAWA 10.7 FLUX

OBSERVED 28 APR 172

ESTIMATED 29 APR 180

PREDICTED 30 APR-02 MAY 182/185/190

90 DAY MEAN 28 APR 213

V. GEOMAGNETIC A INDICES

OBSERVED AFR 27 APR 39 AP 28 APR 16

ESTIMATED AFR 28 APR 15 AFR/AP 29 APR 19/25

PREDICTED AFR/AP 30 APR-02 MAY 12/15 15/20 12/15

SOLTERWARM

BT

HFUS 3 BOU 092200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO  
SDF NUMBER 119E

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200 UT 29 APRIL 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 29/1200 UT  
TO 29/2200 UT: SOLAR ACTIVITY HAS BEEN LOW. NEW REGIONS NUMBERED  
TODAY ARE 3078 (S08E52), 3079 (N08E65), 3080 (N16E74). RETURNING  
REGIONS SHOWING SIGNIFICANT FEATURES HAVE NOT MATERIALIZED AS  
EXPECTED. IT IS NOW PRESUMED THAT OLD REGION 3049 HAS MOVED  
AROUND THE LIMB BEYOND THE RANGE OF INFLUENCE. A LOW LEVEL PROTON  
EVENT WHICH BEGAN ON 28 APRIL AND REACHED 70 PARTICLES GREATER  
THAN 10-MEV AT 29/0345Z, ENDED AT 29/1930Z.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY MAYBE EXPECTED TO  
REMAIN LOW FOR THE FORECAST PERIOD.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS  
BEEN ACTIVE, SHOWING A DECREASING TREND OF ACTIVITY. IT SHOULD  
SUBSIDE TO UNSETTLED LEVELS, APPROACHING QUIET LEVELS WITHIN THE  
FORECAST PERIOD.

III. EVENT PROBABILITIES 30 APRIL - 02 MAY

CLASS M 50/50/50

CLASS X 05/01/01

PROTON 05/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 29 APRIL 174

PREDICTED 30 APRIL - 02 MAY 182/185/190

90-DAY MEAN 29 APRIL 212

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 28 APRIL 17/16

ESTIMATED AFR/AP 29 APRIL 22/25

PREDICTED AFR/AP 30 APRIL - 02 MAY 12/15 - 15/20 - 12/15

SOLTERWARN

BT