

HEUS 1 RCU 191300

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDE NUMBER 139A

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 19 MAY 1981

I. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 18/1200UT TO 19/1200UT:

SOLAR ACTIVITY CONTINUES LOW. DESPITE THE APPEARANCE AND POTENTIAL OF REGIONS 3106 (N13W31) AND 3112 (N16W20), FLARE ACTIVITY HAS BEEN RESTRICTED TO C-CLASS X-RAY LEVELS. THE LARGEST EVENT IN OVER 24 HOURS WAS THE C6/1E FROM REGION 3106 AT 18/1945Z MAXIMUM.

SLOW WHITE LIGHT DECAY IS STILL EVIDENT IN REGION 3106, BUT H-ALPHA FEATURES REMAIN RATHER IMPRESSIVE. REGION 3112 HAS NOW BECOME THE LARGER, MORE COMPLEX OF THE TWO GROUPS WITH NEW PERIPHERAL SPOT GROWTH AND A STRONG NEGATIVE POLARITY ISOLATED POLE IN THE LEADER PORTION OF THE REGION. REGIONS 3113 (S24E10) AND 3114 (S65W34) HAVE CHANGED LITTLE IN THE PAST 24 HOURS.

II. SOLAR ACTIVITY FORECAST:

SOLAR ACTIVITY IS EXPECTED TO BE LOW TO MODERATE, ALTHOUGH REGION 3112 DOES NOT HAVE A HISTORY OF SIGNIFICANT FLARES, AN ISOLATED M-CLASS OR LARGER EVENT IS EXPECTED DURING THE NEXT 24 HOURS. POTENTIAL FOR A MODERATE EVENT FROM REGION 3106 IS DIMINISHING, BUT SYMPATHETIC FLARES WITH REGION 3112 ARE LIKELY.

III. GEOPHYSICAL SUMMARY AND FORECAST:

THE GEOMAGNETIC FIELD HAS RETURNED TO ACTIVE LEVELS FOLLOWING YESTERDAY'S STORM CONDITIONS. ACTIVE CONDITIONS ARE EXPECTED FOR THE NEXT 24 HOURS. THE PROTON EVENT DROPPED BELOW THRESHOLD LEVELS AT 18/1325Z, BUT A SLIGHT ENHANCEMENT OF LOW ENERGY PARTICLES CONTINUES AT THE PRESENT TIME.

III. EVENT PROBABILITIES: 20 MAY - 22 MAY

CLASS M 70/65/50

CLASS X 20/10/05

PROTON 20/10/05

PCAF YELLOW

IV. OTTAWA 10.7 FLUX

OBSERVED 18 MAY 190

ESTIMATED 19 MAY 180

PREDICTED 20-22 MAY 175/170/168

90 DAY MEAN 18 MAY 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR 17 MAY 14 ΔP 18 MAY 52

ESTIMATED AFR 18 MAY 36 AFR/AP 19 MAY 18/25

PREDICTED AFR/AP 20-22 MAY 15/25 - 20/25 - 10/20

SOLTERWARN

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HFUS 3 BOU 192200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLORADO

SDF NUMBER 139B

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY

ISSUED 2200 UT 19 MAY 1981

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/1200 UT TO 19/2200 UT: SOLAR ACTIVITY HAS BEEN LOW. NO EVENT IN THE PAST 10 HOURS HAS EXCEEDED C2 X-RAY INTENSITY. THE COMPLEX OF REGIONS 3106/3112 IS DECAYING OVERALL BUT WITH AN INCREASE IN SPOT COUNT IN THE PORTION OF REGION 3112 (N15W26) NEAREST REGION 3106 (N13W37). REGION 3113 (S25E05) CONTINUES WITH A VERY LARGE LEADER SPOT WITH A MINOR DELTA MAGNETIC CONFIGURATION. ITS ASSOCIATED FILAMENT HAS BEEN OCCASIONALLY ACTIVE.

IB. SOLAR ACTIVITY FORECAST: CONTINUED SLOW DECAY IN REGIONS 3106-3112 WILL KEEP ACTIVITY TO OCCASIONAL SUBFLARES. THERE REMAINS A POSSIBILITY FOR AN ISOLATED SMALL CLASS-M EVENT IN EITHER 3106-3112 OR REGION 3113. NO SIGNIFICANT REGIONS ARE EXPECTED TO APPEAR AT EAST LIMB DURING THE NEXT THREE DAYS.

II. GEOPHYSICAL SUMMARY AND FORECAST: THE GEOMAGNETIC FIELD HAS BEEN UNSETTLED DURING THE PAST 10 HOURS. UNSETTLED CONDITIONS WILL DOMINATE THE NEXT THREE DAYS. ACTIVE CONDITIONS ARE EXPECTED DURING 00-09Z PERIODS FOR THE NEXT TWO DAYS.

III. EVENT PROBABILITIES 20 MAY - 22 MAY

CLASS M 65/50/45

CLASS X 10/05/05

PROTON 10/05/05

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 19 MAY 189

PREDICTED 20-22 MAY 183/175/170

90-DAY MEAN 19 MAY 215

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 18 MAY 38/52

ESTIMATED AFR/AP 19 MAY 15/25

PREDICTED AFR/AP 20-22 MAY 15/25 - 20/25 - 10/20

SOLTERWARN

BT