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FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

CDR NUMBER 11304

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 1200UT 19 MAY 1981

I A. 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 (N 13W 31) AND 3112 (N 1EW 20), FLARE ACTIVITY HAS BEEN RESTRICTED TO C-CLASS X-RAY LEVELS. THE LARGEST EVENT IN OVER 24 HOURS WAS THE C5/1E 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 (S 24E 10) AND 3114 (S 25W 34) HAVE CHANGED LITTLE IN THE PAST 24 HOURS.

B. 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.

II. 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 180

ESTIMATED 19 MAY 180

PREDICTED 20-22 MAY 175/170/168

90 DAY MEAN 18 MAY 215

V. GEOMAGNETIC INDICES

OBSERVED AFR 17 MAY 14 AP 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

SOLTEPWARN

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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 UNSETLED DURING THE PAST 10 HOURS. UNSETLED 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

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