

HWUS 3 BOU 062200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 127

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 06 MAY 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 05/2100 TO 06/2100Z: SOLAR ACTIVITY WAS LOW. REGION 4480 (N01E64)

REMAINED A SINGLE, LARGE HSX SPOT IN WHITE LIGHT

CLASSIFICATION. THE EVENTS ASCRIBED TO IT YESTERDAY SHOULD HAVE BEEN ATTRIBUTED TO THE NEWLY NUMBERED REGION 4481 (N07E76)

WHICH WAS EAST-NORTH-EAST OF REGION 4480. REGION 4481 WAS A EKO (WHITE LIGHT) CLASSIFICATION WITH 650 MILLIONTHS AREA, 10

SPOTS, 14 DEGREES LONGITUDINAL EXTENT, AND A BETA MAGNETIC CONFIGURATION. IT HAD SURGING AND POINT BRIGHTENINGS IN

ADDITION TO THE SIX SMALL C-LEVEL X-RAYS AND SUB-FLARES. BRIGHT TOP KNOTS WERE SIGHTED LATE IN THE PERIOD BUT NO LEGS WERE SEEN

TO QUALIFY AS LOOPS. ONE UNCONFIRMED REPORT OF BETA-GAMMA

CONFIGURATION AND MORE SPOTS YET TO ROTATE ONTO THE DISC IMPLIED A SIGNIFICANT FUTURE. A FOUR DEGREE LONG FILAMENT

DISAPPEARED FROM S20E24 AT 6/0240-0250Z JUST PRECEDING A M1 FLARE FROM REGION 4478 (S17E15). IT WAS .8 DEGREES WIDE AND

ORIENTED EAST-WEST. ANOTHER FILAMENT NEAR S29W33 AT 6/0901Z ALSO DISAPPEARED BETWEEN THAT TIME AND 2000Z. THIS FILAMENT WAS APPROXIMATELY FIVE BY FIVE DEGREES SQUARE.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE. REGION 4481 SHOULD PROVIDE ANY ACTIVITY AS WELL AS A

FAIR CHANCE OF HIGH LEVELS. IT PROBABLY IS THE RETURNING REGION 4471 (N04, CAR-153) WHICH ROTATED AROUND THE WEST LIMB AS A DAO

CLASSIFICATION WITH ONLY EIGHT SPOTS AND 270 MILLIONTHS AREA.

CONJECTURE THAT IT IS EITHER STILL GROWING SLOWLY AND WILL

CONTINUE TO PRODUCE ACTIVITY, OR THAT IT HAS PEAKED IN AREA/SPOT GROWTH AND NOW DECREASING (WITNESS THE MAJOR LOOPS AND ACTIVITY OF YESTERDAY) WILL SUPPORT CONTINUING ENERGETIC

EVENTS THROUGHOUT THE FORECAST PERIOD. RETURNING REGION 4468 (N08, CAR-142) IS ALSO PUSHING UP AGAINST THE BACK OF RGN 4481 AND MAY ACCOUNT FOR SOME OF THE FAR EAST-NORTH-EAST ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 05/2100Z TO 06/2100Z:

GEOMAGNETIC ACTIVITY WAS AT ACTIVE TO MINOR STORM LEVELS. STORM LEVELS WERE REPORTED AT HIGH LATITUDES UNTIL 6/0900Z. THIS WAS ATTRIBUTED TO RECURRING ACTIVE CARRINGTON LONGITUDES. NOTE THE

DISAPPEARING FILAMENTS FROM S20E24 AT 6/0245Z (MID-POINT OF TIME) AND FROM S29W33 AT 6/1430Z (MID-POINT OF TIME).

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE ACTIVE. MINOR STORM LEVELS MAY BE REPORTED AT

HIGH LATITUDES DURING NIGHT-TIME PERIODS. AN INCREASE TO MAJOR STORM LEVELS AT HIGH (AND MINORS AT MID) LATITUDES ARE EXPECTED

ON THE THIRD DAY (9 MAY) AS THE EFFECTS OF THE DISAPPEARING FILAMENTS SHOULD ENHANCE ACTIVITY.

III. EVENT PROBABILITIES 07 MAY-09 MAY

CLASS M 80/80/80

CLASS X 25/25/25

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 06 MAY 106

PREDICTED 07 MAY-09 MAY 108/112/116

90 DAY MEAN 06 MAY 130

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 05 MAY 017/026

ESTIMATED AFR/AP 06 MAY 016/025

PREDICTED AFR/AP 07 MAY-09 MAY 010/015-010/015-015/020

SOLTERWARN

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