

HFUS 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 LONGITUDENAL 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 0N 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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