

HFU53 BOU 202200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 202

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 20 JUL 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 19/2100 TO 20/2100Z: SOLAR ACTIVITY WAS VERY LOW. REGION 4544 (N11W86) PROVIDED SEVERAL SUB-FLARES: LARGEST WAS B1.2 X-RAY CORRELATED AT 20/0328Z WITHOUT RADIO OR OTHER ASSOCIATED EVENTS. THIS REGION WAS AN AXX (WHITE-LIGHT CLASSIFICATION) AT PERIOD'S END, BUT DUE TO FORESHORTENING NEAR THE LIMB SHOULD BE REMEMBERED AS AT LEAST A DSO WITH INCREASING SPOT NUMBER/AREA/LONGITUDINAL EXTENT FOR ITS RETURN NEXT ROTATION. NUMEROUS POINT BRIGHTENINGS, SURGES, AND AN ACTIVE DARK FILAMENT WERE REPORTED IN ADDITION TO THE SUB-FLARES. REGION 4546 (S16E08) ALSO HAD AN ACTIVE DARK FILAMENT, AND VERY SMALL POINT BRIGHTENINGS. IT REMAINED AN ALPHA-TYPE. TWO PROMINENCES ON THE WEST LIMB OCCURRED: LARGER AT S25 EXTEND TO 0.10 RADII ABOUT 20/0915Z; SMALLER AT S05 PEAKED IN ACTIVITY ABOUT THE SAME TIME. ONE NEW REGION WAS ASSIGNED: REGION 4548 (S15W09) WAS A EMERGING BETA-TYPE WITH FIVE SPOTS. A FILAMENT 11 DEGREES LONG AND 0.4 DEGREES WIDE DISAPPEARED BETWEEN 19/0022 AND 19/2130Z FROM A CENTROID POINT AT N07, CAR-357 WITH NE-SW ORIENTATION. SUBSEQUENT OBSERVATION TODAY INDICATES FAINT RE-APPEARANCE. ANOTHER E-W ORIENTED FILAMENT ABOUT 10 DEGREES WEST OF THIS ONE AT N09 WAS FADED IN SAME PHOTO.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE VERY LOW. REGION 4544 IS THE MOST PROBABLE ENERGETIC REGION BUT IS NOW NEARING THE LIMB AS IT IS STILL MATURING. NO RETURNING REGIONS PROVIDE SIGNIFICANT ACTIVITY POTENTIAL.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 19/2100Z TO 20/2100Z: GEOMAGNETIC ACTIVITY WAS ACTIVE TO UNSETTLED. STORM LEVELS WERE REPORTED AT SOME HIGH LATITUDE SITE THROUGHOUT THE PERIOD.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE ACTIVE TO UNSETTLED. BRIEF STORM LEVELS ARE EXPECTED AT HIGH LATITUDES. MINOR STORM LEVELS ARE POSSIBLE AT MID-LATITUDES DURING MIDNIGHT-TIME PERIODS ON THE SECOND AND THIRD DAYS (22-23 JUL).

III. EVENT PROBABILITIES 21 JUL-23 JUL.

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 20 JUL 074

PREDICTED 21 JUL-23 JUL 070/073/074

90 DAY MEAN 20 JUL 114

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 19 JUL 015/020

ESTIMATED AFR/AP 20 JUL 013/015

PREDICTED AFR/AP 21 JUL-23 JUL 012/015-014/020-014/020

SOLTERWARN

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