

HFUS3 BOU 182200
FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO
SDF NUMBER 200

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 18 JUL 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 17/2100 TO 18/2100Z: SOLAR ACTIVITY WAS LOW. REGION 4537 (S08W67) PRODUCED A B-LEVEL X-RAY EVENT IN CONJUNCTION WITH ACTIVE PROMINENCES/SURGES BUT NO SIGNIFICANT ASSOCIATIVE RADIO PHENOMENA. TWO NEW REGIONS WERE ASSIGNED: REGION 4545 (S07E33) WAS A SIMPLE BETA-TYPE WITH FOUR SPOTS IN WHITE-LIGHT; AND REGION 4546 (S15E34) WAS A SIMPLE BETA-TYPE WITH TWO SPOTS. REGION 4545 DISPLAYED ARCHED FILAMENT SYSTEMS WITH INCREASING PLAGE INTENSITY. REGION 4541 (S17W12) RENEWED ITS LIFE ANOTHER DAY WITH A BXO WHITE-LIGHT CLASSIFICATION FOLLOWING ITS SUB-FLARE LATE IN YESTERDAY'S PERIOD.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE LOW. REGIONS 4537 WILL ROTATE AROUND THE LIMB SOON, BUT STILL PROVIDES A VERY SLIGHT CHANCE OF ENERGETIC ACTIVITY IN RESPECT FOR ITS SURGING AND PROMINENCE REGIONS. NO RETURNING REGIONS DEMONSTRATED ANY CHARACTERISTICS DURING THEIR LAST ROTATION THAT WOULD PROVIDE POTENTIAL SIGNIFICANT PROMISE DURING THEIR RETURN.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 17/2100Z TO 18/2100Z: GEOMAGNETIC ACTIVITY WAS AT MINOR STORM TO ACTIVE LEVELS. MAJOR STORM LEVELS WERE REPORTED AT HIGH LATITUDES. THIS DISTURBANCE WAS ATTRIBUTED TO A RECURRENT CORONAL HOLE STREAM ENHANCED BY RECONFIGURATION AND CONSEQUENT MINOR FILAMENT ERUPTIONS IN THE LARGE SECTOR NORTH OF THE EQUATOR BETWEEN CARRINGTONS 150 TO 360. THE MINOR GEOMAGNETIC STORM CONTINUED IN PROGRESS AT HIGH LATITUDES, BUT ENDED AT LOW AND MID-LATITUDES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: GEOMAGNETIC ACTIVITY IS EXPECTED TO BE AT ACTIVE TO MINOR STORM LEVELS. THE HIGH LATITUDINAL STORM LEVELS ARE EXPECTED TO CONTINUE THROUGH THE FIRST DAY (19 JUL), DECREASING TO OCCASSIONALLY MINOR PERIODS ON THE SECOND DAY (20 JUL). A DECREASE TO UNSETTLED-TO-ACTIVE LEVELS IS EXPECTED OVER-ALL FOR THE LATTER PART OF THE SECOND DAY THROUGHOUT THE THIRD DAY (20-21 JUL).

III. EVENT PROBABILITIES 19 JUL-21 JUL

CLASS M 01/01/01

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 18 JUL 083

PREDICTED 19 JUL-21 JUL 083/084/085

90 DAY MEAN 18 JUL 115

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 17 JUL 030/045

ESTIMATED AFR/AP 18 JUL 018/022

PREDICTED AFR/AP 19 JUL-21 JUL 010/015-011/015-014/020

SOLTERWARN

BT