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HFUS 1 BOU 012200

FROM SPACE ENVIRONMENT SERVICES CENTER BOULDER COLO

SDF NUMBER 183

JOINT USAF/NOAA PRIMARY REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY  
ISSUED 2200Z 01 JULY 1980

IA. AN X2/1B FLARE AT 1628Z TODAY WAS IN OUTSTANDING CONTRAST TO A VERY QUIET SUN BEFORE AND AFTER THAT TIME. THIS EVENT OCCURRED IN REGION 2544 (S1IW40) WHICH HAS GROWN TO A MODERATE-SIZED CLASS-E SPOT GROUP WITH A STRONG MAGNETIC ANOMALY IN ITS SOUTH-CENTRAL PORTION. A RADIO BURST AT 10CM REACHED 1037 FLUX UNITS BUT THERE WERE NO TYPE II OR TYPE IV BURSTS. IONOSPHERIC EFFECTS WERE VERY STRONG AND INCLUDED A MAGNETIC CROCHET. ALL OTHER REGIONS ARE SMALL AND EVOLVING SLOWLY. THE SOLAR SOURCE OF AN INTERPLANETARY SECTOR BOUNDARY IS PRESENTLY LOCATED AT W60, SO ITS INTERPLANETARY EXTENSION IS NEARING THE EARTH. AN EQUATORIAL CORONAL HOLE IS LOCATED AT CENTRAL MERIDIAN.

IB. MAJOR SOLAR EVENTS ARE EXPECTED TO CONTINUE IN REGION 2544 FOR THE NEXT TWO OR THREE DAYS. SOLAR INDICES WILL DECREASE TO RATHER LOW LEVELS FOR SOLAR MAXIMUM AS SIGNIFICANT REGIONS ROTATE OVER WEST LIMB. NO SIGNIFICANT REGIONS ARE EXPECTED TO RETURN TO EAST LIMB DURING THIS FORECAST PERIOD.

II. THE GEOMAGNETIC FIELD HAS BEEN QUIET TODAY WITH THE EXCEPTION OF THE SUDDEN DEVIATION AT THE TIME OF THE LARGE SOLAR FLARE. THE PASSAGE OF THE SECTOR BOUNDARY IS EXPECTED EARLY ON 02 JULY WITH UNSETLED TO SLIGHTLY ACTIVE CONDITIONS FOR THE NEXT THREE DAYS.

III. EVENT PROBABILITIES 02 JULY - 04 JULY

CLASS M            70/70/50

CLASS X            20/20/10

PROTON            10/10/05

PCAF              GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED            01 JULY 157

PREDICTED          02-04 JULY 150/144/142

90-DAY MEAN        01 JULY 210

V. GEOMAGNETIC A INDICES

OBSERVED FREDERICKSBURG 30 JUNE 10

ESTIMATED AFR/AP    01 JULY 07/08

PREDICTED AFR/AP    02-04 JULY 14/15 - 16/18 - 16/18

SOLIERWARN

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