

HFUS 3 BOU 292200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 089

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 29 MAR 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 28/2100 TO 29/2100Z: SOLAR ACTIVITY HAS BEEN MODERATE THIS PERIOD.

REGIONS 4455 (S13E43) AND 4458 (N19E60) HAVE BEEN THE SOURCES OF THE MODERATE LEVEL ACTIVITY. REGION 4455 PRODUCED A M2/1B FLARE AT 0158 UT. ONLY MINOR RADIO BURSTS WERE ASSOCIATED WITH THIS FLARE. REGION 4458 HAS PRODUCED TWO M CLASS X-RAY FLARES THIS PERIOD. A M1 AT 0055 UT AND A M2/1B FLARE AT 1749 UT. THE FLARE AT 1749 UT WAS ACCCOMPANIED BY A 245 MHZ RADIO BURST OF 1700 FLUX UNITS AND OTHER ASSORTED MEDIUM RANGE RADIO BURSTS. ALL OF THE M CLASS X-RAY FLARES, WITNESSED TODAY, WERE VERY FAST RISING EVENTS. THE REMAINDER OF THE FLARE ACTIVITY, FOR THIS PERIOD, WAS LIMITED TO C LEVEL X-RAY AND OPTICAL SUBFLARES. THE OTHER REGIONS ON THE DISK APPEAR STABLE AT THIS TIME. NO NEW REGIONS WERE NUMBERED THIS PERIOD.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD REMAIN MODERATE THROUGHOUT THE FORECAST PERIOD. REGIONS 4455 AND 4458 ARE PROBABLE SOURCES OF ANY MODERATE LEVEL ACTIVITY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 28/2100Z TO 29/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT STORM LEVELS, AT ALL LATITUDES, THIS PERIOD. THIS ACTIVITY HAS BEEN DUE TO THE IMPACT OF CORONAL HOLE STREAMS. THE CORONAL HOLE RESPONSIBLE FOR THIS DISTURBANCE IS A NEGATIVE POLARITY HOLE, WHOSE LEADING EDGE IS NOW AT WEST 50 DEGREES LONGITUDE.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE LEVEL OF ACTIVITY, IN THE GEOMAGNETIC FIELD, SHOULD DECREASE TO ACTIVE LEVELS AT ALL LATITUDES THE FIRST DAY OF THE FORECAST PERIOD. THE REMAINDER OF THE PERIOD, THE FIELD SHOULD BE AT QUIET TO UNSETTLED LEVELS AT MIDLATITUDES AND UNSETTLED TO ACTIVE LEVELS AT HIGH LATITUDES.

III. EVENT PROBABILITIES 30 MAR-01 APR

CLASS M 80/80/80

CLASS X 05/05/05

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 29 MAR 141

PREDICTED 30 MAR-01 APR 143/146/148

90 DAY MEAN 29 MAR 125

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 28 MAR 035/053

ESTIMATED AFR/AP 29 MAR 034/050

PREDICTED AFR/AP 30 MAR-01 APR 020/030-010/020-005/015

SOLTERWARN

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