

HFUS 3 BOU 102200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 069

JOINT USAF/NOAA REPORT OF SOLAR AND GEO PHYSICAL ACTIVITY.

ISSUED 2200Z 10 MAR 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 09/2100 TO 10/2100Z: SOLAR ACTIVITY INCREASED ABRUPTLY TO THE MODERATE LEVEL DURING THE 24 HOUR PERIOD WITH THE OCCURRENCE OF AN M1/1N FLARE FROM REGION 4104 (S20W66) AT 0923Z MAXIMUM. THIS FLARE WAS ACCOMPANIED BY WEAK DISCRETE FREQUENCY RADIO BURSTS THROUGH THE SPECTRUM, 39 FLUX UNITS AT 2695MHZ, AND BY A WEAK TYPE II SWEEP-FREQUENCY RADIO BURST. THIS REGION ALSO PRODUCED SEVERAL MINOR SUBFLARES DURING THE PERIOD. THE SECOND LARGEST EVENT OF THE PERIOD WAS A C7/SF FLARE FROM REGION 4105 (S0SW90 AT 2200Z) WITH A FLARE MAXIMUM AT 0045Z. REGION 4104 HAS REMAINED AT MATURE SPOT GROUP DURING THE PERIOD WITH NO GROWTH OR DECAY NOTED. REGION 4105 IS DISPLAYING SLOW DECAY AS IT ROTATES OVER WEST LIMB. REGION 4110 (S02W38) HAS STABILIZED AS A MODERATE-SIZED D-TYPE SPOT GROUP WITH WEAK MAGNETIC GRADIENTS. IT HAS PRODUCED SEVERAL SMALL SUBFLARES DURING THE PERIOD. NEW REGION 4113 (N07W40) DEVELOPED ON THE DISK TODAY IN AN AREA NORTH OF REGION 4110. IT IS A SLOW GROWING B-TYPE SPOT GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD RETURN TO THE LOW CATEGORY DURING THE FORECAST PERIOD. REGION 4104 COULD PRODUCE ANOTHER ISOLATED M-CLASS EVENT PRIOR TO LIMB ROTATION ON THE 12TH.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 09/2100Z TO 10/2100Z: THE GEOMAGNETIC FIELD HAS BEEN QUIET AT MID-LATITUDE STATIONS WITH SLIGHTLY UNSETTLED CONDITIONS OBSERVED FOR HIGH-LATITUDE SITES.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BECOME ACTIVE DURING THE NEXT 08-12 HOURS IN RESPONSE TO A CORONAL HOLE NOW ROTATING INTO A FAVORABLE SUN-EARTH CONNECTION LONGITUDE. THESE ACTIVE LEVELS SHOULD PERSIST FOR THE DURATION OF THE FORECAST PERIOD.

III. EVENT PROBABILITIES 11 MAR-13 MAR

CLASS M 10/10/05

CLASS X 01/01/01

PROTON 01/01/01

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 10 MAR 117

PREDICTED 11 MAR-13 MAR 110/103/095

90 DAY MEAN 10 MAR 147

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 09 MAR 009/009

ESTIMATED AFR/AP 10 MAR 007/010

PREDICTED AFR/AP 11 MAR-13 MAR 020/015-025/015-020/020

SOLTERWARN

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