

HFUS 3 BOU 142200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 134

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 14 MAY 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 13/2100 TO 14/2100Z: SOLAR ACTIVITY WAS MODERATE DUE TO A M1/SB FLARE FROM REGION 4173 (S11W26) AT 0728UT. REGIONS 4171 (S30W25), 4172 (S10W27) AND 4174 (09E40) ALL PRODUCED SEVERAL "C" CLASS EVENTS DURING THE PAST 24 HOURS. REGIONS 4171 AND 4173 HAVE EXHIBITED WHITE LIGHT DECAY THIS PERIOD. THE REST OF THE REGIONS HAVE BEEN OBSERVED AS GENERALLY STABLE. NEW REGIONS TODAY ARE 4177 (S09E04), 4178 (S05E20) AND 4179 (S26E78). REGION 4177 IS A "C" TYPE GROUP.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE MODERATE TO LOW DURING THIS FORECAST PERIOD. REGIONS 4171 AND 4173 CONTINUE TO BE CAPABLE OF AN OCCASIONAL "M" CLASS EVENT. IF RAPID DECAY OCCURS IN 4171/4173 THEN AN ISOLATED "X" EVENT IS POSSIBLE. WITH CONTINUED DECAY IN REGION 4171 AND REGION 4173 ROTATING OVER THE LIMB ACTIVITY MAY BECOME LOW DURING THIS FORECAST PERIOD.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 13/2100Z TO 14/2100Z: THE GEOMAGNETIC FIELD WAS AT GENERALLY ACTIVE LEVELS DURING THE PAST 24 HOURS. THE MID-LATITUDE SITES WERE AT MINOR STORM LEVELS BETWEEN 0000UT AND 0730UT WHILE THE HIGH LATITUDE SITES WERE AT MAJOR STORM LEVELS. A BRIEF PERIOD AT MINOR STORM LEVEL WAS OBSERVED AT THE HIGH LATITUDE SITES FROM 1930UT TO 2100UT, THE MID-LATITUDE SITES OBSERVED ACTIVE CONDITIONS. A SMALL FILAMENT, (S25W25) AT 13/1730UT, IS REPORTED TO HAVE DISAPPEARED BY 14/1400UT.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE FIELD IS EXPECTED TO BE ACTIVE WITH SHORT PERIODS AT MINOR/MAJOR STORM LEVELS DURING THE NIGHT TIME SECTORS IN RESPONSE TO THE M5 EVENT OF 12 MAY. FOR THE REST OF THE FORECAST PERIOD THE FIELD IS EXPECTED TO BE ACTIVE TO UNSETTLED.

THE SMALL FILAMENT WHICH DISAPPEARED MAY CAUSE A SHORT PERIOD OF MINOR STORM CONDITIONS ON THE 18/19 MAY.

III. EVENT PROBABILITIES 15 MAY-17 MAY

CLASS M 90/90/60

CLASS X 30/15/10

PROTON 20/10/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 14 MAY 153

PREDICTED 15 MAY-17 MAY 145/140/130

90 DAY MEAN 14 MAY 120

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 13 MAY 029/037

ESTIMATED AFR/AP 14 MAY 023/025

PREDICTED AFR/AP 15 MAY-17 MAY 025/025-014/025-013/020

SOLTERWARN

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