

HFUS 3 BOU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 142

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 22 MAY 1983

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/2100 TO 22/2100Z: SOLAR ACTIVITY HAS BEEN LOW WITH AN OPTICALLY UNCORRELATED C5 AT 22/1012Z BEING THE LARGEST EVENT OBSERVED. REGION 4183 (N18E12) HAS PRODUCED SEVERAL SUBFLARES. THERE IS STRUCTURAL CHANGE IN THIS REGION BUT NO SIGNIFICANT GROWTH OR DECAY. DELTA CONFIGURATIONS COME AND GO IN 4183 AS IT EVOLVES. REGION 4174 (N10W65) CEASED ITS RAPID EMERGENCE OF YESTERDAY AND APPEARS TO BE DECAYING TODAY. REGION 4187 (S17E53) WAS NUMBERED TODAY. THIS GROWING, SUBFLARING, SMALL CLASS C GROUP HAS AN EAST-WEST NEUTRAL LINE AND WAS ORIGINALLY CARRIED AS THE TRAILER OF REGION 4185 (S17E46).

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY SHOULD BE AT LOW TO MODERATE LEVELS FOR THE FORECAST PERIOD. REGION 4183 RETAINS THE CAPABILITY OF PRODUCING CLASS M FLARES. AN ISOLATED MAJOR FLARE IS POSSIBLE BUT UNLIKELY. A REGION WHICH WAS GROWING AND SUBFLARING AT ITS LAST WEST LIMB TRANSIT IS DUE AT THE EAST LIMB ON 24 MAY.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 21/2100Z TO 22/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE TO MINOR STORM LEVELS FOR THE PAST 24 HOURS. SOME HIGH LATITUDE STATIONS HAVE EXPERIENCED INTERMITTENT PERIODS OF MAJOR STORM CONDITIONS.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD SHOULD CONTINUE AT ACTIVE TO MINOR STORM LEVELS THROUGH 23 MAY WITH PREDOMINANTLY ACTIVE CONDITIONS EXPECTED FOR 24 MAY. UNSETTLED TO SLIGHTLY ACTIVE GEOMAGNETIC CONDITIONS ARE FORECAST FOR 25 MAY.

III. EVENT PROBABILITIES 23 MAY-25 MAY

CLASS M 50/50/50

CLASS X 05/05/05

PROTON 05/05/05

PCAF GREEN

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 MAY 148

PREDICTED 23 MAY-25 MAY 150/150/152

90 DAY MEAN 22 MAY 124

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 MAY 024/021

ESTIMATED AFR/AP 22 MAY 028/033

PREDICTED AFR/AP 23 MAY-25 MAY 020/025-016/020-010/020

SOLTERWARN

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