

HFUS 3 BOU 222200

FROM SPACE ENVIRONMENT SERVICES CENTER, BOULDER, COLORADO

SDF NUMBER 143

JOINT USAF/NOAA REPORT OF SOLAR AND GEOPHYSICAL ACTIVITY.

ISSUED 2200Z 22 MAY 1984

IA. ANALYSIS OF SOLAR ACTIVE REGIONS AND ACTIVITY FROM 21/2100 TO 22/2100Z: SOLAR ACTIVITY HAS BEEN AT A MODERATE LEVEL WITH ONLY TWO M CLASS EVENTS OBSERVED THIS PERIOD. A M1/1B AT 0626UT WITH MINOR RADIO OBSERVED THROUGHOUT THE SPECTRUM, 8 FLUX UNITS AT 2695MHZ, FROM REGION 4492 (S11E18). REGION 4492 ALSO PRODUCED A M6/2B AT 1450UT THIS EVENT HAD A TYPE IV IMPORTANCE 2 SWEEP AND A TENFLARE OF 560 FLUX UNITS, NO TYPE II SWEEP WAS OBSERVED. REGION 4492 HAS EXHIBITED DECAY IN BOTH SIZE AND BRIGHTNESS. NEW REGION TODAY WAS NUMBERED 4496 (S15E44) A SIMPLE A TYPE HOWEVER A 1N FLARE WAS OBSERVED WITH THIS REGION AT 1719UT.

IB. SOLAR ACTIVITY FORECAST: SOLAR ACTIVITY IS EXPECTED TO BE AT A MODERATE LEVEL DURING THIS FORECAST PERIOD WITH ONLY AN ISOLATED CHANCE FOR X CLASS EVENTS. THE DECAY IN REGION 4492 IS EXPECTED TO CONTINUE FOR THE NEXT THREE DAYS.

IIA. GEOPHYSICAL ACTIVITY SUMMARY FROM 21/2100Z TO 22/2100Z: THE GEOMAGNETIC FIELD HAS BEEN AT ACTIVE LEVELS, SHORT PERIODS OF MINOR STORM CONDITIONNS, AT THE MID LATITUDES WHILE THE HIGH LATITUDE SITES OBSERVED PERIODS OF MAJOR STORM CONDITIONS. THE CURRENT PERIOD OF ACTIVITY IS THOUGHT TO BE FROM A RECURRENT NEGATIVE CORONAL HOLE STREAM.

IIB. GEOPHYSICAL ACTIVITY FORECAST: THE GEOMAGNETIC FIELD IS EXPECTED TO BE AT ACTIVE TO MINOR STORM LEVELS DURING THIS FORECAST PERIOD DUE TO THE EFFECTS OF THE CORONAL HOLE AND THE MAJOR FLARES OF THE LAST FEW DAYS. THE HIGH LATITUDE SITES WILL OBSERVE SHORT PERIODS OF MAJOR STORM LEVEL ACTIVITY DURING 23 AND 24 MAY GENERALLY DURING THE NIGHT TIME SECTORS.

III. EVENT PROBABILITIES 23 MAY-25 MAY

CLASS M 80/70/60

CLASS X 20/15/10

PROTON 20/15/10

PCAF YELLOW

IV. OTTAWA 10.7 CM FLUX

OBSERVED 22 MAY 127

PREDICTED 23 MAY-25 MAY 127/127/123

90 DAY MEAN 22 MAY 130

V. GEOMAGNETIC A INDICES

OBSERVED AFR/AP 21 MAY 039/052

ESTIMATED AFR/AP 22 MAY 020/040

PREDICTED AFR/AP 23 MAY-25 MAY 030/030-030/030-020/025

SOLTERWARN

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